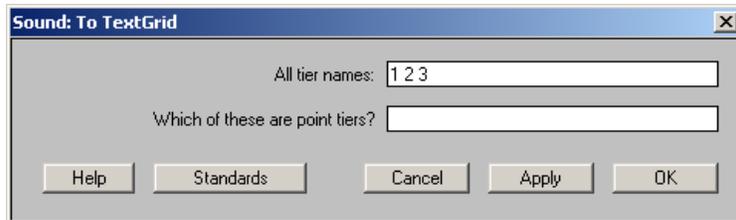


Lab Day Demo

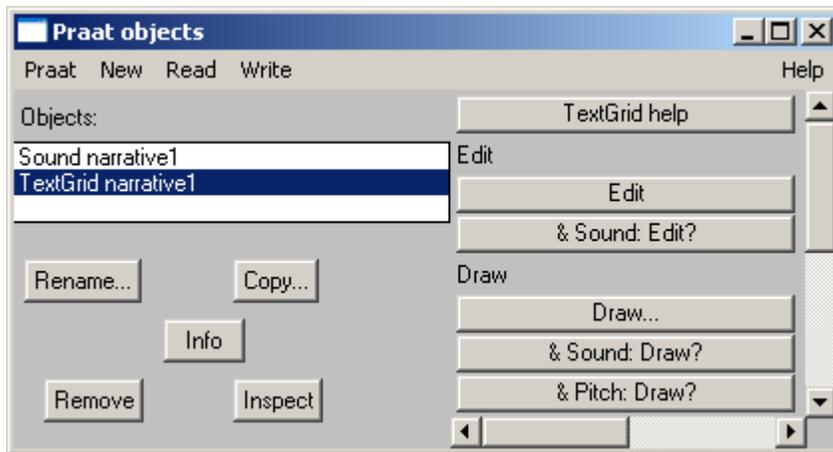
Objective:

- 1) To segment a soundfile into vowels and consonants in order to be able to observe formants and aperiodic frequencies.
- 2) Extract and 'paint' spectrogram with segmentation

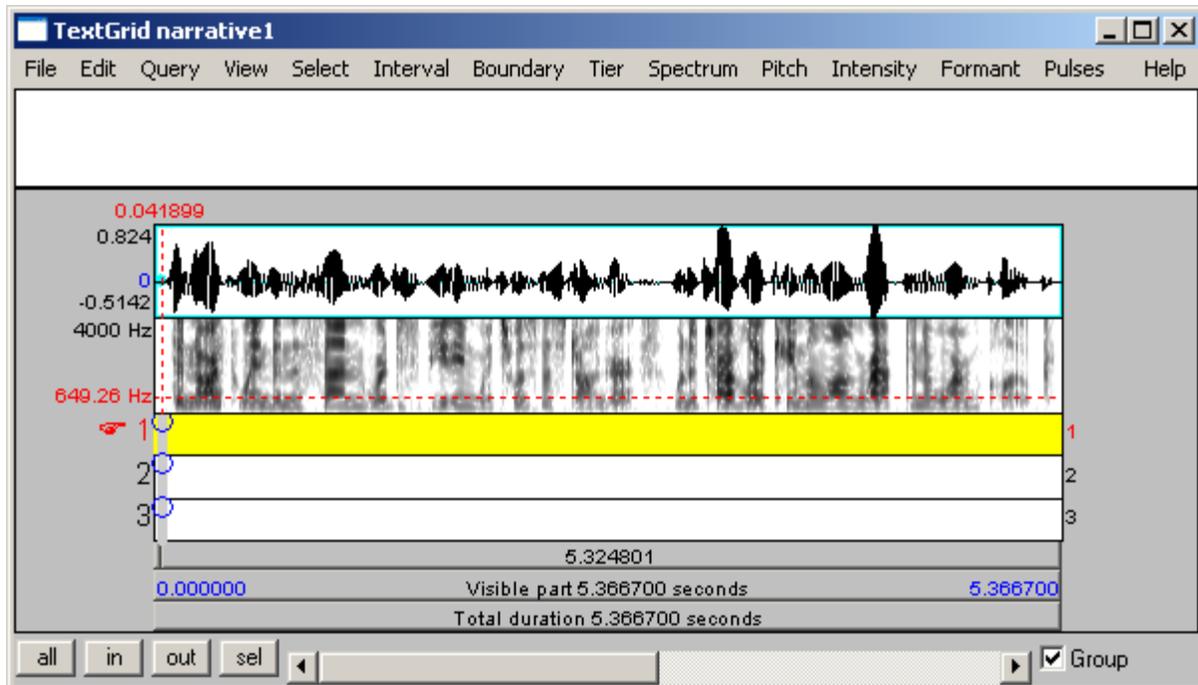
1. In Courseweb, go to **Documents > Demo** and save "Narrative1.wav" file.
2. Launch *Praat* and go to **Read > Read from file...** (to open) sound file.
3. Click on "Narrative1.wav" shown in list.
4. On right-hand side, click on **Annotate > To textgrid**
5. Box will appear. Change All tier names (**Mary John bell**) to **1 2 3** ; change Which? (**bell**) to delete (bell) so box is blank and Click OK.



6. Textgrid will appear in objects window



7. Highlight both Sound and Textgrid file and click Edit button on right-hand side.
8. Turn off extra settings if showing:
 - Go to menu option Pitch and click on the checkmarked Show Pitch to turn it off.
 - Go to Intensity and uncheck the Show Intensity setting
 - Go to Formant and uncheck the Show Formant setting
 - Go to Pulses and uncheck the Show Pulses setting
9. If not already showing, go to Spectrogram and check the Show Spectrogram setting.
10. Place cursor at the very beginning of the file (within the spectrogram).



11. To add boundaries. There are three ways to add boundaries.

First way: Within tier 1: Click on circle shown. A boundary will appear in tier 1.

Second way: Go to Interval > Add boundary on tier 2. A boundary will appear in tier 2.

Third way: Hit the key combination Ctrl+3. A boundary will appear in tier 3.

12. To create larger segment. Go to **Select > Move cursor to** and type **1.24**

13. Click inside Tier 3. Play the sound file by clicking on the bottom portion. Type written text within Tier 3.

14. Click within Tier 3 so it's highlighted pink and the click on [sel] button at bottom of page to zoom in.

15. On tier 2, segment the phrase into words. Go to **Select > Move cursor to** and type 0.16

16. Add boundary on tier 1 (Ctrl+1) and on tier 2 (Ctrl+2)

17. Click inside that new segment and type the first word

18. Click inside that segment again (if not highlighted in pink) and click on the [sel] selection button

19. Go to **Select > Move cursor to** and type 0.09

20. Add boundary on tier 1 (Ctrl+1)

21. Go to **Select > Move cursor to** and type 0.119

22. Add boundary on tier 1 (Ctrl+1)

23. Click inside the first of the two segments and type the corresponding phonetic symbol \th (for "eth")

24. Click inside the second segment and type the sequence for schwa \sw

25. Zoom back out: Click on [all] button in left-hand corner.

26. Zoom back in: Click on phrase on tier 3 and click on [sel]

27. Repeat process to segment words (tier 2) and sounds (tier 1).

28. Use phonetic symbols for tier 1. Note: The key to phonetic symbols is within the **Help** menu.

29. Once you have segmented the phrase “The North wind and the sun”, create the spectrogram printout starting in step 31.
(The rest of the sound file may also be segmented, but create the printout first).

AS YOU WORK:

Make sure to be saving periodically (after every word?). *Praat* is ‘crashy’ so you won’t lose as much if you keep saving.

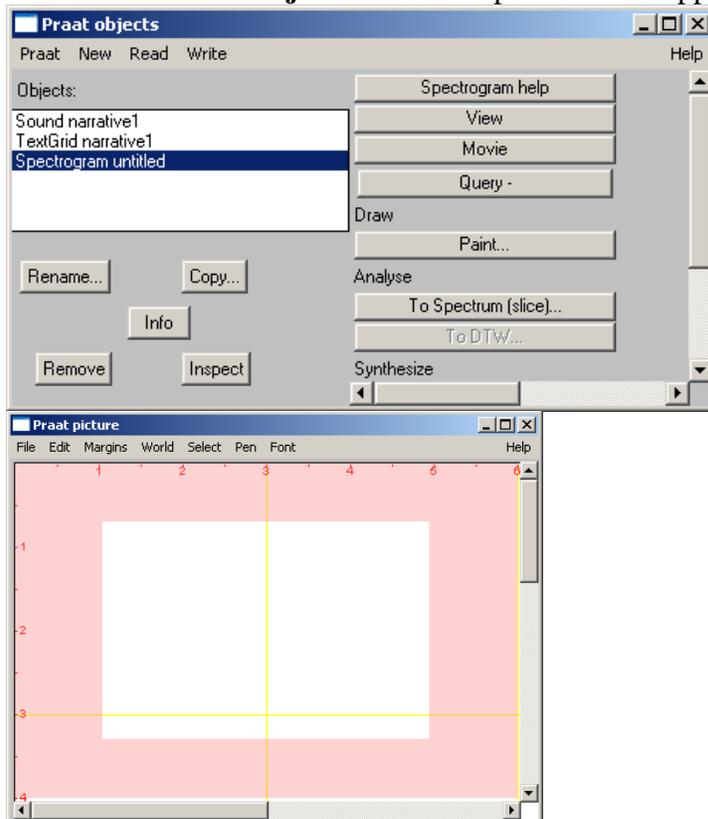
30. **Go to File > Write TextGrid to textfile**

BEFORE YOU LEAVE:

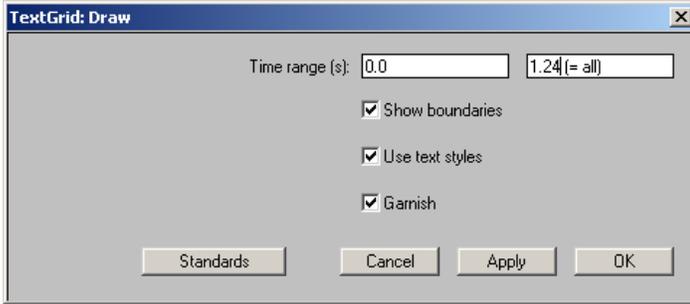
Create a spectrogram to printout and turn in with your name on it.

To Extract and Print the Spectrogram with sound wave and textgrid.

31. Zoom all the way out: Click on [all] button in lower left-hand corner
32. Extraction: **Go to Spectrum > Extract visible spectrogram.**
33. Click on **Praat objects** window. Spectrum will appear as third item



34. Change to Praat Picture window.
35. Expand to full size
36. Draw box that is full width (12) by 3 high (see image below)
37. Return to Praat Objects window; click on **Sound file** and then **Draw** button.
38. Let time range be 0 to 1.24 seconds and click OK



39. Change to Praat Picture window.
40. Highlight between 2.5 and 6.5 high and 12 across.
41. Return to Praat Objects window; click on **Spectrogram** and then **Paint** button.
42. Let time range be 0 to 1.24 seconds and click OK
43. Change to Praat Picture window.
44. Highlight between 2.5 and 9.5 high and 12 across.
45. Return to Praat Objects window; click on **Textgrid** and then **Draw** button.
46. Let time range be 0 to 1.24 seconds and click OK
47. Change to Praat Picture window.
48. Highlight entire picture with cursor
49. Save: **Go to File > Write to EPS file** rename “narrative1.eps”
50. In Word, go to **Insert > Picture > From file** and insert “narrative1.eps”. (Note: If you just copy and paste directly from Praat, the quality of the spectrogram is often lost.)

Add your name and date to the printout and print to turn in.

