

Structure of a typical Praat script

- set parameters (such as file names for tracking formants)
- open files (or just select objects that are already open) and remove them when finished
- read a textgrid (to choose where to make measurements)
- generate an object to measure (in this case, a Formant object)
- use a for loop to go through the potential measurement points and an if statement to screen them
- make the measurements
- write the results to a text file
- COMMENTS (ignored by Praat)

```
1
2 #####
3   ###   get_formants.praat
4   ###
5   ###
6   ###   MEASURES FORMANT VALUES FOR SEGMENTS IN A TEXTGRID
7   #####
8
9   #PROMT THE USER FOR INPUT
10  form Measure formant values for segments in a textgrid
11     sentence sound_file myname
12     positive maximum_formant 5500
13     positive number_of_formants 5
14  endform
15
16  #DELETE THE OLD FORMANT FILE IF IT EXISTS
17  filedelete formants_'sound_file$'.txt
18
19  #SELECT THE SOUND AND FIND THE FORMANTS
20  select Sound 'sound_file$'
21  To Formant (burg)... 0 'number_of_formants' 'maximum_formant' 0.025 50
22
23  #COUNT THE NUMBER OF INTERVALS IN THE PHONES TIER OF THE TEXTGRID
24  select TextGrid 'sound_file$'
25  intervals = Get number of intervals... 1
26
27  #GO THROUGH THE PHONE INTERVALS ONE BY ONE
28  for i from 2 to intervals-1
29     select TextGrid 'sound_file$'
30     phone$ = Get label of interval... 1 I
31
32     #SEE IF THE INTERVAL LABEL IS A PHONE
33     if phone$ != "" and phone$ != "sp"
34
35         #GET TIMES DURING THE PHONE
36         start = Get starting point... 1 i
```

```

37     end = Get end point... 1 I
38     quarter = start + (end-start) / 4
39     halfway = start + (end-start) / 2
40     three_quarters = start + (end-start) * 3 / 4
41
42     #IDENTIFY THE WORD
43     j = Get interval at time... 2 halfway
44     word$ = Get label of interval... 2 j
45
46     word_start = Get starting point... 2 j
47     word_end = Get end point... 2 j
48
49     #IDENTIFY THE PRECEDING PHONE
50     if start = word_start
51         left$ = "#"
52     else
53         left$ = Get label of interval... 1 i-1
54     endif
55
56     #IDENTIFY THE FOLLOWING PHONE
57     if end = word_end
58         right$ = "#"
59     else
60         right$ = Get label of interval... 1 i+1
61     endif
62
63     #MEASURE F1 AND F2 AT THREE TIMES
64     select Formant 'sound_file$'
65     f1_1 = Get value at time... 1 'quarter' Hertz Linear
66     f2_1 = Get value at time... 2 'quarter' Hertz Linear
67     f1_2 = Get value at time... 1 'halfway' Hertz Linear
68     f2_2 = Get value at time... 2 'halfway' Hertz Linear
69     f1_3 = Get value at time... 1 'three_quarters' Hertz Linear
70     f2_3 = Get value at time... 2 'three_quarters' Hertz Linear
71
72     #RECORD THE FORMANT MEASUREMENTS
73     fileappend formants_'sound_file$'.txt
74     'word$', 'left$', 'phone$', 'right$', 'f1_1', 'f2_1', 'f1_2', 'f2_2', 'f1_3', 'f2_3' newline
75     '$'
76     endif
77     endfor
78
79     select Formant 'sound_file$'
80     Remove

```