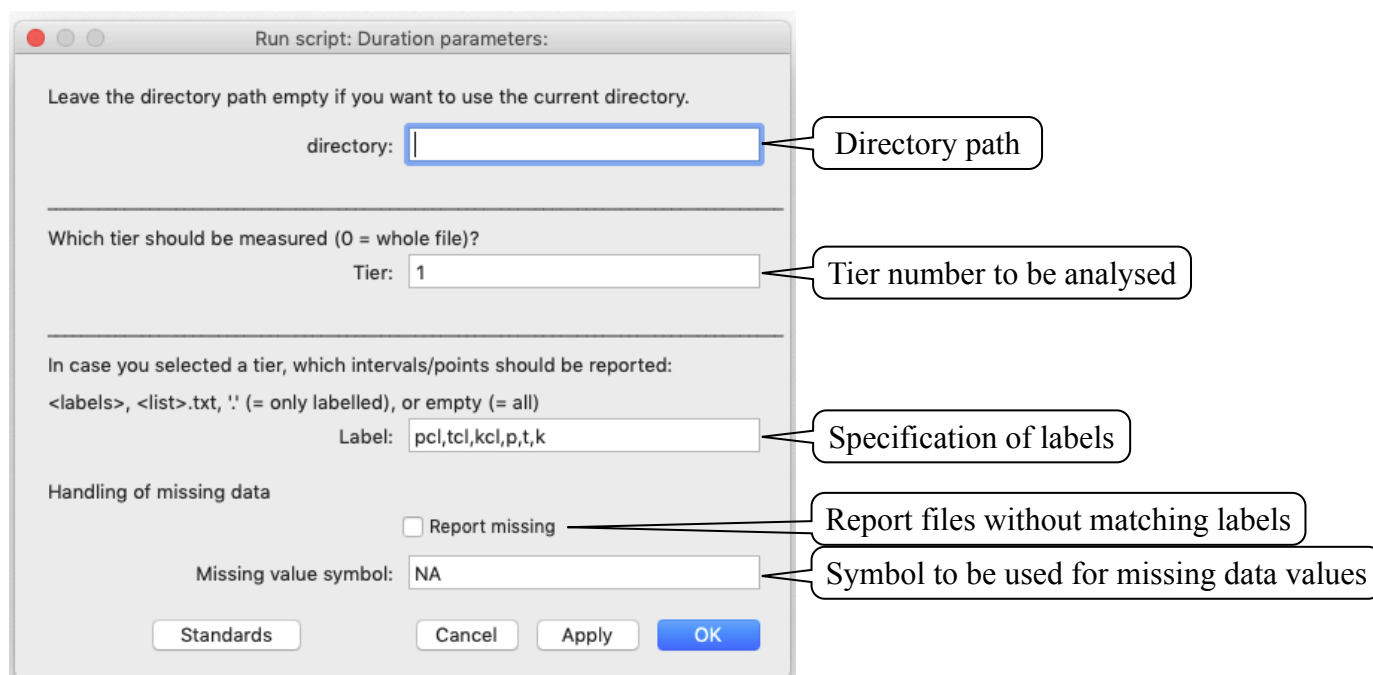## Durauion_3_0.praat

Task:

This script opens all TextGrid or sound files in a directory, and computes the durations of intervals or position of points or the duration of whole files (see **Tier number to be analysed** for details). The names for labels of intervals and points that should be reported can be specified in various ways. The results are written to a text file with the name "duration_results_<date>_<time>.txt".

There are more parameters that control the behaviour of the script than they are displayed in the form window (the size of the form window fits into a screen with 900+ points vertical resolution). These parameters can be set below the form statement in the script (see the **Programming**) section.

Parameter:

Please read the **Programming** section for more internal parameters that can easily be changed.

Directory path:
The script handles all files in a directory specified in this field. If this field is left empty, the script will handle all files in the directory where the script was started (i.e., the script is placed in the same directory as the sound or TextGrid files).

Tier number to be analysed:
The number of the tier to be analysed. If the tier number is set to '0', the length of the whole audio file is reported. If a tier is an interval, the start and the duration of the interval is reported. If the tier is a point tier, the position of the point point is reported as 'Start(s)' in the output file and the 'Duration' in the output file is set to the **Symbol for missing values**.

Specification of labels:
The intervals or points that should be analysed can be specified in several ways (this field is ignored if 'tier' is set to '0'):

<label>:
Giving a label (e.g. a:) or a list of labels separated by commas or spaces (e.g. p,t,k) will only report segments that have this label. This function is case sensitive.

<list>.txt:
Giving a text file (e.g. label_list.txt) will report all segments that are listed on a line-by-line basis in a raw text file (<u>not</u> a Word or Pages file). Note that the extension .txt must be given in this field. Example of such a text file:
```
a
a:
ae
o
```

'.':
Using a dot (.) will report values for every labelled segment.

empty:
Leaving this field empty will report values for all labelled and unlabelled segments.

Report files without matching labels:
If no label in a TextGrid file matches the **Specification of labels**, the file will be listed with **Symbol for missing values** in the result file when this flag is set. (This flag is ignored when 'tier' is '0'.)

Symbol for missing values:
The script reports the 'Duration' of points as a 'missing value'. (E.g. JMP uses a dot to indicate missing values, R uses NA.

Result file:
The script generates a raw text file with tab-delimited data, a header line, and reports information about the analysis. The file name is of the form "duration_results_<date>_<time>.txt" with <date> of the form 'yymmdd' (i.e. 2-digit year, 2-digit month, 2-digit day) and <time> of the form 'hhmmss' (i.e. 2-digit hour in 24 hour format, 2-digit minutes, 2-digit seconds). For example, a file with the name "duration_results_190322_150110.txt" was created on the 22nd of March 2019 at 3pm, 1 minute and 10 seconds. The parameters controlling the computation are listed at the end of every result file.

The result file for an analysis to report intervals or points that have either the label pcl, tcl, kcl, p, t, or k and reporting of files that do bot have any of them. In this example, the TextGrid of TEST_DR1_FAKS0_SA1 has one interval labelled kcl and one labelled k, g071a001 has point labelled kcl, and g071a000 has none of the 6 labels. The result file will look like :

```
File                  Label     Start(s)    Duration(ms)
TEST_DR1_FAKS0_SA1    kcl       1.4175      70.0
TEST_DR1_FAKS0_SA1    k         1.4875      19.0
g071a000              NA        NA          NA
g071a001              kcl       0.5000      NA

Analysis started: 25-Jul-20 13:34:15
Tier: 1
Labels: pcl,tcl,kcl,p,t,k
```

Information for programming:
Some parameters can be set underneath the 'form' section in the script. These are:

Directories:
The script uses internally separate strings for sound, TextGrid, result and support directories. Users who use separate directories for these can adjust these names in the script (or put them into PRAATs 'form' window).

Sound file names:
The default extension for sound files is ".wav". This parameter can be changed in the script.

User feedback:
The script reports which file is being handled and the percentage of all files in a directory that have been handled. By setting this switch, any output (other than error and warning messages) will be suppressed. This will decrease processing time, but there is no feedback other than an increasing size of the result file.
user_feedback = 1   Gives user feedback
user_feedback = 0   No user feedback

Dummy data header line:
Statistic programs like JMP decide the type of data for each column on basis of the first data line. To force correct data-type assignment (due to missing data in the first data row) a dummy data line of text, 0 and 0.0 can be generated to force correct data-type assignment.
dummy_data_header = 0   No dummy data line
dummy_data_header = 1   Dummy data line with "Dummy" for strings and "0.0" for numerals

Duration reporting:
duration_in_ms = 1   Duration is reported in milliseconds
duration_in_ms = 0   Duration is reported in seconds

Current version and date:
3.0, 25-jul-2020

Known problems:
None

Planned extension:
None

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