

FonaDyn 3.1.0 script syntax

Everything in a FonaDyn script file is case sensitive.

| Command | Argument | |
|---------|--------------------------------|--|
| // | | Anything after a double slash is a comment. Always use <i>forward</i> slashes / in path names. |
| LOAD | "full/path/to/file.csv" | Load a *_cEGG.csv, *_cPhon.csv, or *_VRP.csv file (include the "quotes" and the file type extension) |
| LOAD | <str-expr> | As above; <str-expr> is any SC code that evaluates to the pathname of an existing file |
| HOLD | | Pause the reading of the script and wait for the user to press START When the input file has been processed, STOP analysing and continue reading the script |
| RUN | | Pause the reading of the script, and START the analysis When the input file has been processed, STOP analysing and continue reading the script |
| SAVE | "full/path/to/file_<type>.csv" | Save the NOW map to a *_VRP.csv file (include the "quotes" and the file type extension) If the file name ends in *_S_VRP.csv, the NOW map is smoothed before it is saved. or, save the cluster centroids to a *_cEGG.csv or *_cPhon.csv file. Include the "quotes" and the file type extension. The <type> ending of the file name controls which data to save. |
| SAVE | <str-expr> | As above; <str-expr> is any SC code that evaluates to a valid pathname of a file |
| EVAL | <single-line expression> | <expression> is any SC code that evaluates correctly in the command window (Ctrl-E) when FonaDyn is running. This can be used to get or set global variables (a..z, ~...). Line breaks are not allowed. Use EVAL only if you know what you are doing. |

(no space before the .period)

| Class | Method | =value of type | Meaning, example |
|-------------------------|-------------------------|-----------------------------|---|
| Input and output | | | |
| io | .filePathInput | "string" | The file to analyse: "drive:/full/pathname/to/the/input/file/<*>_Voice_EGG.wav" |
| io | .keepInputName | false true | false: create a time-stamped filename for output files; true: keep the <*> part of the input file name |
| io | .keepData | false true | false: clear the current voice map and the cluster data before starting; true: don't |
| io | .enabledWriteLog | false true | true: while running, save a _Log.aiff file in the Output directory |
| io | .writeLogFrameRate | number: 0 50 100 300 | 0: log on every EGG cycle; else log at one of the rates given, in Hz. |
| io | .arrayRecordInputs | [inputVoice, inputEGG, ...] | Specifies from which inputs to record to "<*>_Voice_EGG.wav" |
| io | .arrayRecordExtraInputs | [n, ...] | Specifies from which inputs to record to "<*>_Extra.wav" |
| io | .rateExtraInputs | 1...500 | Slow sampling rate for the Extra channels, in Hz. Use only integer divisors of 44100 |
| io | .enabledEcho | false true | True if audio should be played back on the speakers |
| io | .enabledEGGlisten | false true | True to play the EGG signal on the second output; and to display it in the signal window |

Cycle-rate sample entropy estimation

| | |
|---------------------------------|----------|
| sampen .amplitudeWindowSize | 1...20 |
| sampen .amplitudeHarmonics | 1...20 |
| sampen .amplitudeSequenceLength | 1...20 |
| sampen .amplitudeTolerance | 0.0...10 |
| sampen .phaseWindowSize | 1...20 |
| sampen .phaseHarmonics | 1...20 |
| sampen .phaseSequenceLength | 1...20 |
| sampen .phaseTolerance | 0.0...10 |

The check boxes that turn on time plots

| | | |
|----------------------|--------------|--|
| sampen .bDrawQci | false true | true: checks the corresponding check box in the Plots panel; false: unchecks |
| sampen .bDrawDEGGmax | false true | (same as Qdelta) |
| sampen .bDrawCPP | false true | |
| sampen .bDrawSpecBal | false true | |
| sampen .bDrawSampEn | false true | |
| sampen .isVisible | false true | hide/show the Plots panel |

EGG clustering settings

| | | |
|-------------------------|---------------------|--|
| cluster .nHarmonics | 2...20 | |
| cluster .nClusters | 2...20 | |
| cluster .initialize | false true | false: Relearn; true: Pre-learned |
| cluster .learn | false true | false: classify; true: perform clustering |
| cluster .reset | false true | false: disallow resetting the clusters while running |
| cluster .autoReset | false true | true: automatically reset the clustering after first onset of phonation |
| cluster .iFramesToReset | integer (default=5) | # of frames (at 24 Hz) to wait after phonation onset before resetting the cluster data |
| cluster .suppressGibbs | false true | true: hide the ripple in resynthesized EGG wave shapes |
| cluster .isVisible | false true | hide/show the EGG clusters panel |

Phonation type clustering settings

| | | |
|-----------------------------|---------------------|--|
| clusterPhon .nClusters | 2...10 | |
| clusterPhon .initialize | false true | false: Relearn; true: Pre-learned |
| clusterPhon .learn | false true | false: classify; true: perform clustering |
| clusterPhon .reset | false true | false: disallow resetting the clusters while running |
| clusterPhon .autoReset | false true | true: automatically reset the clustering after first onset of phonation |
| clusterPhon .iFramesToReset | integer (default=5) | # of frames (at 24 Hz) to wait after phonation onset before resetting the cluster data |
| clusterPhon .isVisible | false true | hide/show the phonation clusters panel |

Other phonation-type settings (metrics, labels, ranges) are set by loading a prepared _cPhon.csv file

Sundry

| | | |
|---------------------------|--------------|---|
| vrp .clarityThreshold | 0.0 ... 1.0 | default: 0.96 , maybe reduce to 0.9 or less for running speech or pathological voices |
| vrp .bHzGrid | false true | true: plot voice map x axes in Hz (default: MIDI semitones) |
| vrp .isVisible | false true | hide/show the voice map(s) panel |
| vrp .wantsContextSave | false true | enable auto-saving of context with Save Map |
| scope .duration | 1.0 ... 10.0 | seconds on the time axis of plots |
| scope .normalize | false true | amplitude-normalize the moving EGG scope and the clustered EGG waveforms |
| scope .noiseThreshold | 0.0 ... 5.0 | set a spectral threshold for suppressing wide-band noise in the EGG |
| scope .isVisible | false true | hide/show the moving EGG scope |
| general .output_directory | "/full/path" | where to store recordings and other output files |