http://www.sppas.org/

OVERVIEW

SPPAS - *the automatic annotation and analyses of speech*, is a free scientific computer software package. SPPAS is daily developed with the aim to provide a robust and reliable software. It enables easy and efficient access to a wide scope of solutions: annotate, analyze and convert files becomes available to everyone.

AUTHOR

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LANGUAGE

python

FORMATS

audio, video,
annotations: *xra,TextGrid,
eaf, srt, mrk, trs, lab, ...*

LICENSES

software

resources

documents

AWARD

MAIN FEATURES:

1. Annotate automatically or semi-automatically

In the present context, annotations are defined as the practice of adding interpretative, linguistic information to an electronic corpus of spoken and/or written language data. SPPAS automatizes the annotation processes and allows users to save time. List of the annotations:

✔ Modelling of fundamental frequency (D. Hirst)
✔ INTernational Transcription System for INTonation (D. Hirst)
✔ Search for Inter-Pausal Units – IPUs, in an audio file
✔ Fill in IPUs of an audio file with IPUs of a text file
✔ Text Normalization converts an orthographic transcription into a tokenized form
✔ Phonetization is a grapheme to phonemes conversion based on a dictionnary
✔ Time-alignment of phonemes and tokens
✔ Syllabification of time-aligned phonemes
✔ The Time Group Analyzer (D. Gibbon)
✔ Search for self-repetitions in time-aligned tokens
✔ Set the main activity from time-aligned tokens
✔ Estimate the Root-Mean Square values of an audio files in intervals
✔ Estimate occurrences and ranks of annotation labels
✔ Define the stop-words of time-aligned tokens
✔ Face detection, person face identity and face landmark of a video
✔ Cued Speech keys generation from the time-aligned phonemes
✔ Search for other-repetitions in time-aligned tokens of 2 speakers
✔ Search for re-occurrences in synchronized annotations of 2 speakers (M. Karpinski et al.)
✔ Detect activity overlaps of 2 speakers
✔ Detect repeated sequences in two distinct time-aligned tokens of a same speaker

2. Analyze and edit annotations

Some special features are offered in SPPAS for managing annotated files and analyzing data. Among others, it includes a tool to filter multi-levels annotations, another one to estimate descriptive statistics, etc.
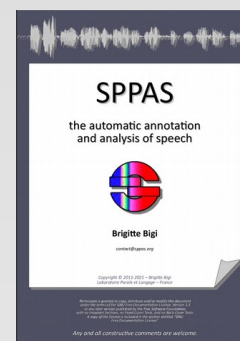
3. Convert annotated files

Annotations can be imported from and exported to a variety of other formats including Praat (TextGrid, PitchTier, IntensityTier), Elan (eaf), Transcriber (trs), Annotation Pro (antx), Phonedit (mrk), Sclite (ctm, stm), HTK (lab, mlf), subtitles formats (srt, sub), CSV files...

PLUGINS:

SPPAS allows to add easily plugins. Current ones are:
- AudioSegmenter: segment audio files into several tracks.
- Clean IPUs of a transcription
- SAMPA to IPA: convert SAMPA into IPA phonemes encoding
- Classify phones: create tiers with the phonemesarticulatory information
- Marsatag: apply MarsaTag French POS-tagger on time-aligned files
- sox: call the Swiss Army Knife of sound processing utilities from SPPAS

DOCUMENTATION:

LINGUISTIC RESOURCES:

All the automatic annotations proposed by SPPAS are designed with language-independent algorithms, but some annotations are requiring language-knowledges. This linguistic knowledge is represented in external files so they can be added, edited or removed easily. It also means that adding a new language for a given annotation only consists in adding the linguistic resources the annotation needs, like lexicons, dictionaries, models, set of rules, etc. Existing resources are free, get them here:

> **❝** Bibliographical citation
>
> Brigitte Bigi (2021). *Resources for SPPAS* [Outil]. ORTOLANG (Open Resources and TOols for LANGuage) - **www.ortolang.fr**, **https://hdl.handle.net/11403/sppasresources**.

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