

# train tts

## script to divide audio

```
srt_file=$1
audio_file=$2

#rm -Rf wav_data.csv

mkdir -p wav

function convert_to_second {
    IFS=: read -r h m s <<<"$1"

    echo $(((h * 60 + m) * 60 + s))
}

function cut_part_from_file {
    FROM=$1
    TO=$2
    INPUT=$3
    OUTPUT=$4

    #LENGTH=$(( $TO - $FROM ))

    ffmpeg -ss $FROM -to $TO -i $INPUT -ar 22050 $OUTPUT -hide_banner -loglevel error
}

stringContain() { case $2 in *$1*) return 0;; *) return 1;; esac ;}

is_line_after_time="false"
counter=0
```

```
IFS=$'\n';
for line in $(cat $srt_file); do
    echo $line
    if [ ! -z "$line" ]; then

        if [[ $is_line_after_time == "true" ]]; then
            is_line_after_time="false"
            echo "$counter|$line" >> _data.csv
        fi

        if [[ $line =~ "-->" ]]; then

            echo $line

            let "counter+=1"
            is_line_after_time="true" # true in bash
            start_time=$(echo $line | awk -F' --> ' '{print $1}' | sed 's/,./g')
            end_time=$(echo $line | awk -F' --> ' '{print $2}' | sed 's/,./g')

            echo $start_time " to " $end_time

            #start_time_in_s=$(convert_to_second $start_time)
            #end_time_in_s=$(convert_to_second $end_time)

            #echo $start_time_in_s " to " $end_time_in_s

            cut_part_from_file $start_time $end_time $audio_file "wav/$counter.wav"
        fi

    fi
done
```

# train

```
python3.10 -m venv env-piper
source env-piper/bin/activate.fish
pip install wheel setuptools
git clone https://github.com/rhasspy/piper.git
```

```
cd piper/src/python/  
pip install -e .  
./build_monotonic_align.sh  
pip install torchmetrics==0.11.4
```

ajouter ligne 232 ".local/lib/python3.10/site-packages/torch/utils/data/dataloader.py"

```
num_workers = 60
```

```
python3 -m piper_train.preprocess --language fr --sample-rate 22050 --dataset-format ljspeech --single-speaker  
--input-dir /home/tjiho/info/ia/input/ --output-dir /home/tjiho/info/ia/output/
```

```
export 'PYTORCH_CUDA_ALLOC_CONF=max_split_size_mb:256'
```

```
python3 -m piper_train \  
    --dataset-dir /home/tjiho/info/ia/output/ \  
    --accelerator 'gpu' \  
    --devices 1 \  
    --batch-size 32 \  
    --validation-split 0.0 \  
    --num-test-examples 0 \  
    --max_epochs 5000 \  
    --checkpoint-epochs 1 \  
    --precision 32 \  
    --resume_from_checkpoint /home/tjiho/info/ia/base-siwis/epoch=3304-  
step=2050940.ckpt
```

```
python3 -m piper_train.export_onnx ~/output/lightning_logs/version_0/checkpoints/epoch\=1314-  
step\=63120.ckpt ~/output/model.onnx
```

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Révision #4

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