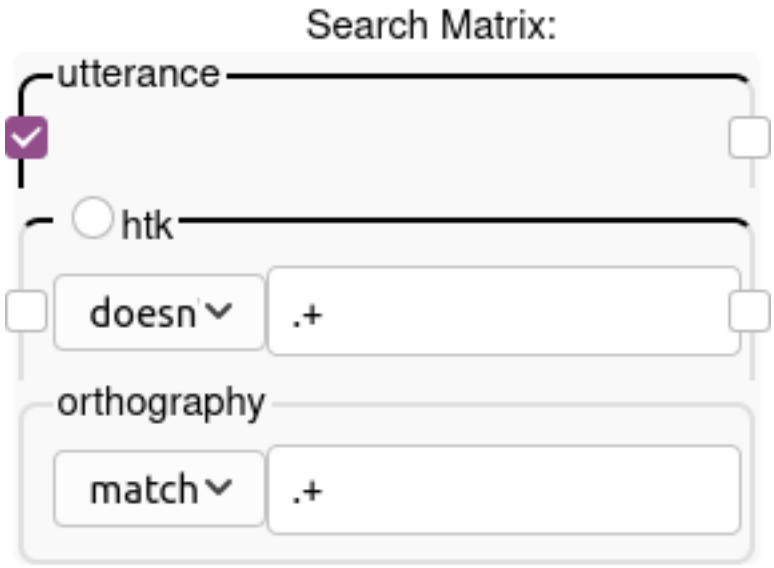
Identifying Unaligned Utterances

Under some circumstances, forced alignment can fail to produce alignments for some utterances; i.e. the utterance has no phone annotations created, the words are not aligned, and no htk annotation is created. This can happen because of the following factors:

- Not enough data (if you're using the 'train-and-align' approach)
- Poor quality recording, background noises, etc.
- Simultaneous speech (ignored by default)
- Inaccurate transcripts
- Inaccurate utterance alignment
- Lack of pause marking in the transcripts
- Mismatched phonology between dictionary and speech
  e.g. using a rhotic dictionary to align non-rhotic speech

You can identify the utterances for which alignment has failed using LaBB-CAT's search and export functionality:

1. Click *search* and select the speaker(s) you aligned.
2. The search should be "the first word of each utterance that doesn't have an htk annotation" - i.e.:
   - *orthography* layer: matches .+
   - *utterance* layer: tick the left-hand checkbox that anchors the word to the beginning of the utterance



   - *htk*[1] layer: doesn't match .+.
3. When the results are listed, click *CSV Export*

[1] *htk* or whatever the phrase tag layer is in the forced alignment configuration

The resulting file has the start and end time of each utterance in the *Line* and *LineEnd* columns. If you want to know the total duration of the unaligned utterances, use Excel or R to calculate the difference between *LineEnd* and *Line* to get the line duration, and then sum these durations to get the total, which is in seconds.