



## How to edit and correct transcriptions

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This document explains how to perform editing steps on a transcription in the EXMARaLDA Partitur-Editor, and how to check for and correct errors in a transcription. Before you start reading this document, you should read

- Understanding the basics of EXMARaLDA
- How to get started
- Audio and video support in EXMARaLDA
- How to make a transcription from a digital recording.

This document will make more sense if you already have a little, preferably time-aligned, piece of transcription with which you can try out the editing steps. This document uses the 'Monty Python: My theory' recording and transcription from the EXMARaLDA demo corpus.

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## 1. Editing functions overview

Editing functions are organised according to the entity of the transcription on which they operate:

- Functions operating on whole tiers are in the **Tier** menu. Most of these functions will only be activated when you've selected one (or, for some functions, several) tiers. The following functions are available in this menu:
  - o **Tier properties**: lets you change the speaker, type, category and display name of the selected tier.
  - o **Edit tiers**: gives you an overview of all tiers and their properties and performs some counts and consistency checks on tiers.
  - o **Add tier**: lets you add a new tier at the end of the partitur
  - o **Insert tier**: lets you insert a new tier above the currently selected one
  - o **Remove tier**: removes the currently selected tier(s)
  - o **Move tier upwards**: swaps positions of the currently selected tier and the one above it
  - o **Change tier order**: opens a dialog for rearranging the order of tiers
  - o **Hide tier**: hides the currently selected tier
  - o **Show all tiers**: makes all hidden tiers visible again
  - o **Remove empty events**: throws out empty events, i.e. events that contain nothing but spaces, out of the currently selected tiers
- Functions operating on individual events or on the text in events are in the **Event** menu. Most of these functions will only be activated when you've selected one (or, for some functions, several) events or when you've clicked inside an event. The following functions are available in this menu:
  - o **Event properties**: lets you change the description of the selected event and enter user-defined metadata for events
  - o **Remove**: deletes the currently selected event
  - o **Merge**: Merges the currently selected events into one single event
  - o **Split**: Splits the currently activated event into two events at the cursor position
  - o **Double split**: Splits the currently activated event into three events, before and after the selected text.
  - o **Shift characters to the left/right**: in the currently activated event: moves the text left/right to the cursor into the preceding/following event
  - o **Extend to the left/right**: lets the currently selected event start/end one timepoint earlier/later
  - o **Shrink on the left/right**: lets the currently selected event start/end one timepoint later/earlier
  - o **Move to the left/right**: Moves the start and end of the currently selected event to an earlier/later timepoint
- Functions operating on the timeline or on individual points/intervals in the timeline are in the **Timeline** menu. Most of these functions will only be activated when you've selected one (or, for some functions, several) timepoints. The following functions are available in this menu:
  - o **Edit timeline item**: Lets you manually specify the absolute time value associated with a timepoint
  - o **Insert timeline item**: Inserts a new timepoint before the currently selected one
  - o **Remove gap**: Removes the currently selected interval (if it is a gap, i.e. if it contains no event and no event spans across it)

- **Remove all gaps:** Removes all gaps in the transcription
- **Remove unused timeline items:** Removes all timeline items at which no events starts and no event ends
- **Make timeline consistent:** Throws out absolute times which do not fit into an increasing sequence
- **Anchor timeline:** Anchors the first and last timeline item to the underlying audio or video recording
- **Interpolate timeline:** Automatically calculates absolute times for timeline items which don't have an absolute time, using linear interpolation
- **Remove interpolated times:** Remove all absolute times that were not created or changed by the user, but through automatic interpolation
- **Shift absolute times:** shifts the whole timeline by adding or subtracting a certain value to/from each absolute time

## 2. Selected editing tasks

### Specifying an overlap

"Overlap" means that a certain event in one tier occupies the same time interval as a certain event in another tier. Often you have a situation like the following:

		98 [02:42.5]	99 [02:42.6]	100 [02:43.1]	101 [02:43.5]
PRE [v]	ou very much.		Newest wa...		Yes thank
ELK [v]		Saying what my theory is.			

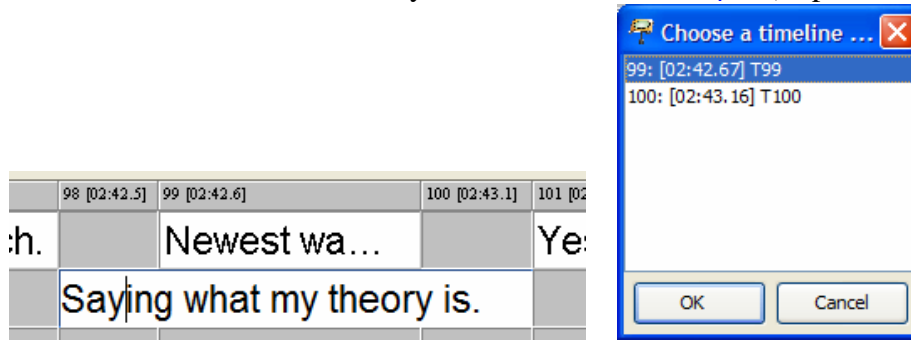
This is telling you that an (interrupted) utterance U1 by speaker PRE ("Newest wa...") is overlapping an utterance U2 by speaker ELK ("Saying what my theory is"), i.e. U1's start and end points lie between U2's start and end points. What it is not telling you is the exact places in U2's utterance at which U1 starts and ends. In order to add that information, you proceed as follows:

1. Mark the first interval.

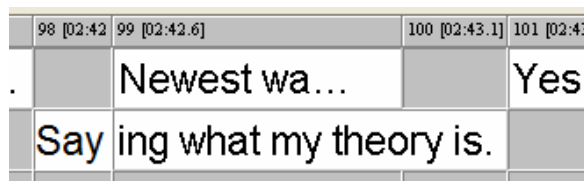
		98 [02:42.5]	99 [02:42.6]	100 [02:43.1]	101 [02:43.5]
PRE [v]	ou very much.		Newest wa...		Yes thank
ELK [v]		Saying what my theory is.			

There are three intervals concerned altogether, numbered 98, 99 and 100 in this example. The first interval is the one in which ELK has started her utterance, but PRE has not yet started his. Listen to the corresponding part of the recording and find out how much of utterance U2 ELK is achieving in this interval. In the example, you will find out that ELK is only uttering the first syllable of U2, namely "Say" (note that the interval is very short, only 0.1 seconds)

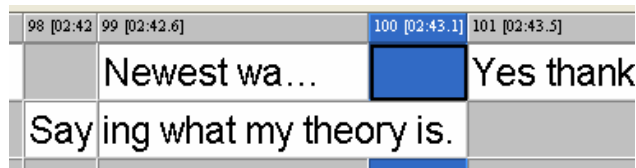
- Place the cursor behind "Say" and choose **Event > Split** (or press Ctrl+2)



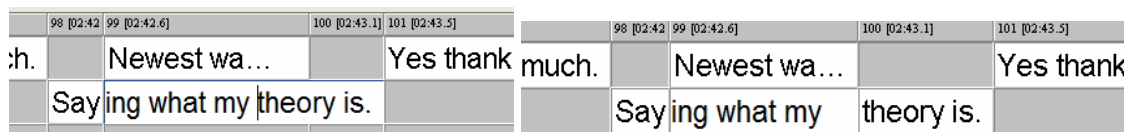
The software opens a dialog asking you at which timeline item to split the event. We're interested in the start point of U1 here, so we choose timeline item 99. The event is now split into two events:



- Perform the same steps for the last interval, i.e. mark it and listen to the corresponding part of the recording.



This is the interval in which PRE has already completed his utterance and only ELK is completing hers. You'll find she's saying the words "theory is" in this interval. Consequently, you place the cursor before the word "theory" and choose **Event > Split** again. Since this time, there is only one timepoint that comes into question, you don't get the dialog – the event is split at timepoint 100. You now have three events for speaker ELK.



## Adding an annotation

Besides using tiers for transcription of verbal and non-verbal behaviour, you can also use them to add annotations to existing transcriptions. Let's say you are interested in prominent suprasegmental properties of what speakers say. You have the following transcription...

	42 [01:19.3]	43 [01:19.7]	44 [01:22.9]	45 [01:23.7]	46
PRE [v]					
ELK [v]		Well!	What is my ah...		7
[nn]	9s))	((laughter, 3,2s))		((laughter, 1,2s))	

...and you want to mark ELK's utterance "What is my ah..." as being uttered very fast and with a staccato rhythm. You start by adding a new tier for that kind of annotation through [Tier > Add tier...](#) You get a dialog in which you can specify properties for that new tier.

Since the thing you want to annotate is in speaker ELK's tier, you choose ELK as the speaker of the new tier. The type of this tier is A(nnotation), the category can be freely chosen, e.g. "sup" as a short form of "suprasegmental".

	43 [01:19.7]	44 [01:22.9]	45 [01:23.7]	46 [01:24.9]
PRE [v]				
ELK [v]	!	What is my ah...		This is it.
[nn]	((laughter, 3,2s))		((laughter, 1,2s))	
ELK [sup]		fast, staccato		

You then get a new tier in which you can enter your annotation in the event that is in the same interval as the annotated event.

Often, however, you want to annotate only a part of an event description. For example, you might want to annotate the words "it is mine" in the following excerpt as being uttered louder than the rest:

	79 [02:16.3]	80 [02:17.8]	81 [02:20.5]
PRE [v]			
ELK [v]		That is my theory, it is mine, and it belongs to me, and I own it,	
[nn]	nter, 1,9s))		
ELK [sup]			

You already have a suitable annotation tier, but you need to split the event according to what you want to annotate. Select the stretch of text inside the event and choose [Event > Double split](#) (or press Strg+3).

80 [02:17.8]	81 [02:20.5]
That is my theory, it is mine, and it belongs to me, and I c	
)	

The event is now split before and after the selection, you get three events instead of one. You can now enter your annotation in the annotation tier:

80 [02:17.8]	81 [02:18.8*]	82 [02:19.4*]	83 [02:20.5]
That is my theory, it is mine, and it belongs to me, and I			
)			
	louder		

Note that the new timepoints that were introduced through the splitting have interpolated absolute time values, indicated by the little star. They will only be approximately accurate. To make them more precise, mark the interval and move the (green and red) boundaries in the waveform view, using [Play Selection](#) repeatedly until what you hear corresponds exactly to what is transcribed in that interval.

At other times, you want to have just one annotation for something that's been distributed over two or more events. For example, in the following excerpt, you might want to annotate the fact that ELK's whole utterance "Well Chris ... my theory." is uttered in a shrill voice.

	23 [53.5]	24 [56.0]	25 [57.0]
PRE [v]			
ELK [v]	theory that it is!	• • Well, Chris, you may well ask me	what is my theory.
[nn]			((laugl
ELK [sup]			

In that case, you mark the two intervals in the annotation tier and then choose Event > Merge (or press Ctrl+1):

	23 [53.5]	24 [56.0]	25 [57.0]
	t is!	• • Well, Chris, you may well ask me	what is my theory.
			((laugl

The two events are then combined into one, and you can enter your annotation:

23 [53.5]	24 [56.0]	25 [57.0]
s!	• • Well, Chris, you may well ask me	what is my theory.
		((la
Very shrill voice		

## Cleaning up a transcription

Often, when you've transcribed for some time, your transcription gets a bit cluttered up by timepoints you thought you needed but actually didn't, events without descriptions in them and so on. The Partitur-Editor has a number of functions that help you to get rid of such things:

[Timeline > Remove unused timeline](#) items will remove all timeline items at which no event starts and no event ends, e.g. the timepoint 31 in the following example:

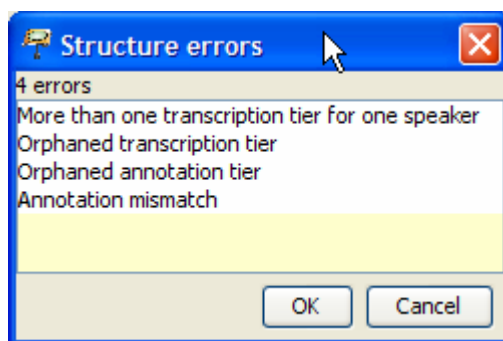
30 [01:03.5]	31 [01:04.6]	32 [01:05.5]	33 [01:06.0]
)			
Well Chris, what is it that it is	this theory of mine?		
			((la

## 3. Consistency Checks

You should check for formal errors after your transcription has been completed, and you should carry out the check in the order suggested here.

### 3.1. Structure errors

Structure errors can be checked via the function [Transcription > Structure errors....](#) They concern properties of and relations between tiers or events in tiers, and they are independent of the transcription convention used. The dialog gives you a list of errors. Double clicking on any list entry will scroll the transcription to the place where the error occurs.



The following structure errors can occur.

1. "More than one transcription tier for one speaker": you can have only one tier of type "T(ranscription)" for each speaker. This error should never occur if you use stylesheets to generate your transcriptions (see above).

2. "Orphaned transcription tier": Tiers of type "T(ranscription)" must be assigned to a speaker. This error should never occur if you use stylesheets to generate your transcriptions (see above).
3. "Orphaned annotation tier": Tiers of type "A(nnotation)" must be assigned to a speaker and there must be a corresponding tier of type "T(ranscription)" which is assigned to the same speaker. This error should never occur if you use stylesheets to generate your transcriptions (see above).

If any of the above errors occur, use the function "Tier > Tier properties..." to correct the speaker or type assignment of the respective tier.

4. "Annotation mismatch": For every event in a tier of type "A(nnotation)", there must be an event or an uninterrupted sequence of events in a corresponding tier of type "T(ranscription)" which has the same start and end points on the timeline. For example, the following is an annotation mismatch because the event "very loud" is in an annotation tier, but there is no corresponding (sequence of) event(s) in the transcription tier.

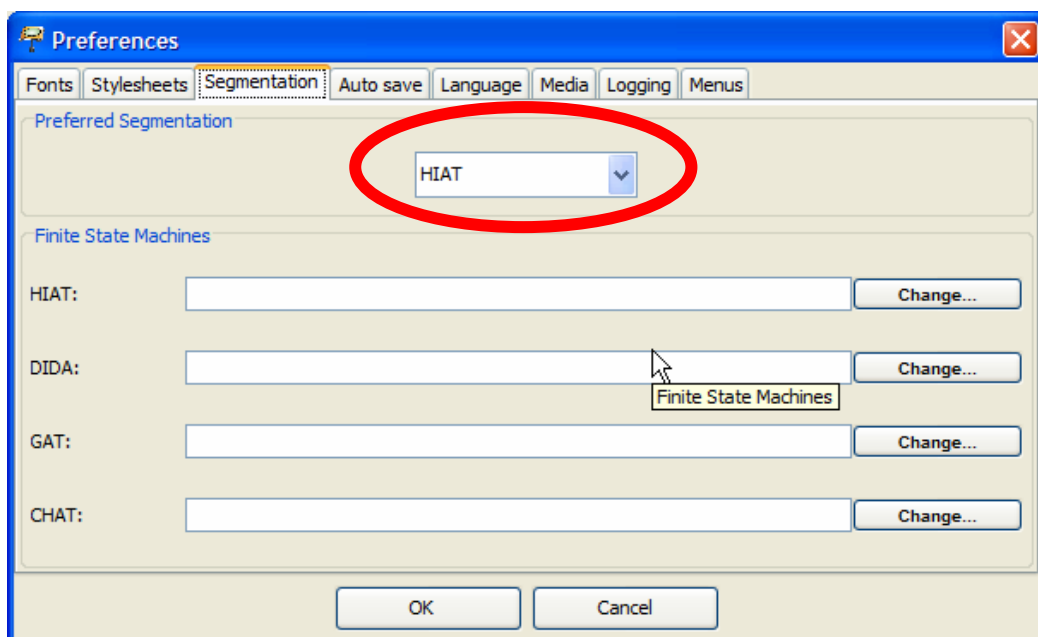
	0 [00.0]	1	2	3
X [sup]		very loud		
X [v]	I say something.	And another thing.		

If an annotation mismatch error occurs, use the functions in the "Event" menu to shrink, move, extend the offending event appropriately.

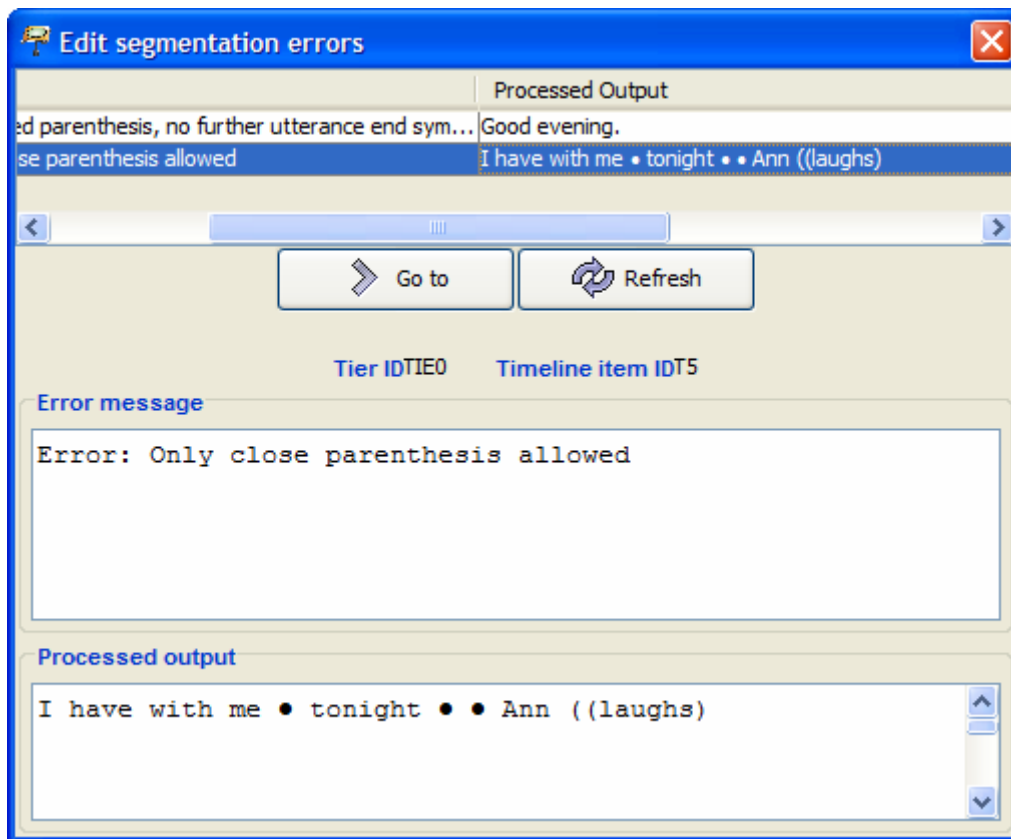
If you're done with correcting the displayed structure errors, close the dialog and call "Transcription > Structure errors..." again. Repeat this until the list is empty.

### 3.2. Segmentation errors

Segmentation errors are errors related to a wrong use of transcription symbols. In order for the check to work correctly, you therefore have to make sure that you have the correct transcription system specified under [Edit > Preferences... > Segmentation](#):



Use [Transcription > Segmentation errors...](#) to display a list of segmentation errors.



In the above example, the segmentation error is caused by a missing closing parenthesis – i.e. it should be "((laughs))" instead of "((laughs)". Double click on any entry in the error list to scroll the transcription to the position where the error occurs. Correct it and click "Refresh" in the dialog. Repeat this for all errors until the list is empty.

### 3.3. Word lists

If there are no segmentation errors, you can use [Transcription > Word list...](#) to get a list of all words in the transcription. You can sort this list alphabetically to check for the correct spelling and other typing errors. A rather common error is an omitted space at a word boundary at the end of an event resulting in two words being glued to one another.

If you find an error, double click on the word to get to the corresponding position in the transcription. Correct the error, then click "Refresh" in the word list.

Word list

Filter

359 tokens / 147 types

Refresh

Word	Spea...
goes	ELK
goes	ELK
going	ELK
have	PRE
have	PRE
have	ELK
have	ELK
have	ELK
have	ELK
have	ELK
havewith	PRE
had	PRE
here	ELK
hit	PRE
how	ELK
in	ELK
is	PRE
is	PRE
is	PRE
is	ELK
is	ELK
is	ELK
is	ELK
is	ELK
is	ELK
is	ELK

Save as...