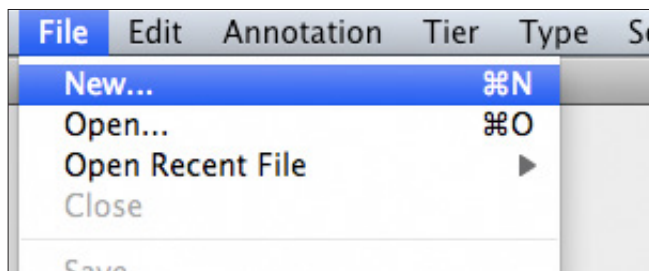
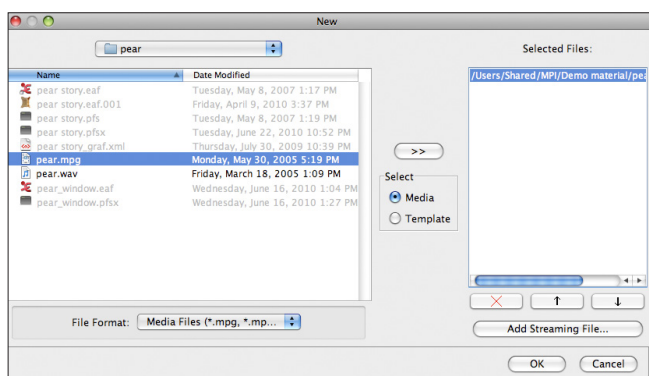


# How to: create a new annotation document



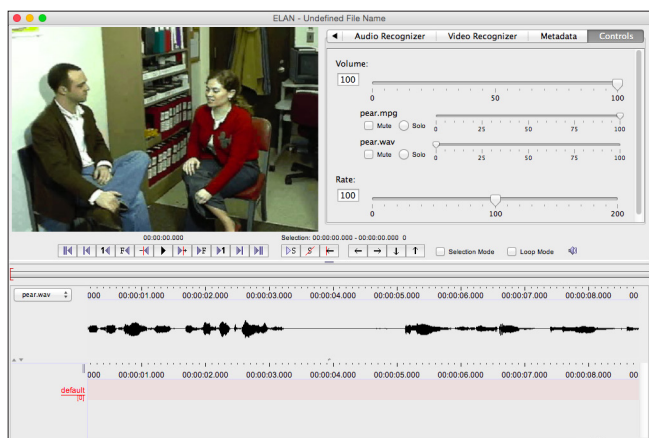
1. In the **File** menu, select **New...**



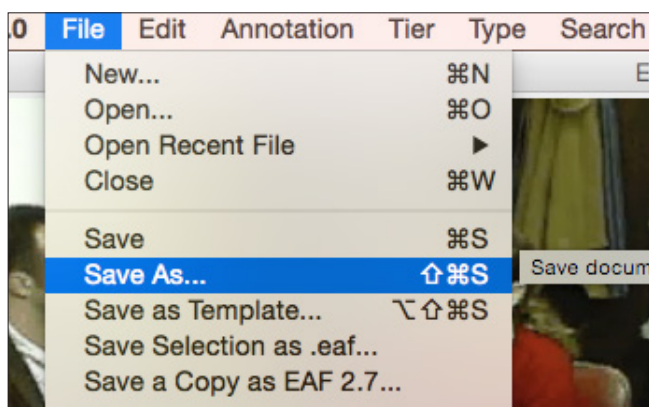
Use the "File Format" box to only show files of a specific media file type, e.g. mp4, mpeg or wav.

2. In the File browser, navigate to the folder containing the media file(s) and select one or more media files. Click the "copy to right" button (">>") or double-click the media file. The right panel lists the selected file(s) for the new document. The first file in the list is the leading, the "master" media. Up to 4 video files can be displayed simultaneously in the ELAN window.

Note: this window may look quite different on Mac OS X.



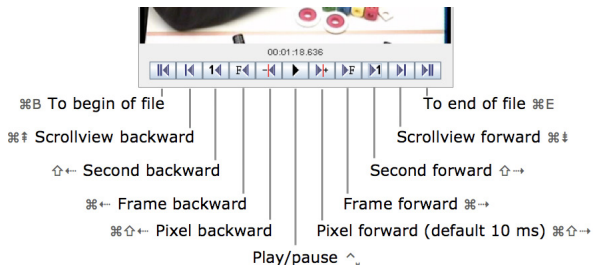
3. A new document is created with the media player(s) and one tier named "default".



4. In the **File** menu, select **Save...** or **Save As...** to save the new document as an ELAN Annotation File (.eaf).

Note: as of ELAN 4.7 there is a menu item for saving the file in an older format, EAF 2.7, for compatibility with earlier ELAN versions.

## How to: navigate the media and use the media controls

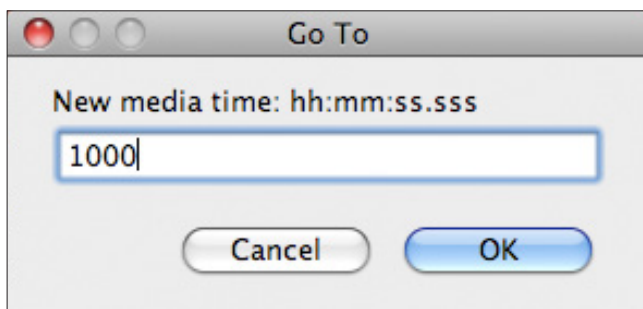


1. An extended, VCR style set of media controls is available for starting and pausing the media player and for stepping through the media.

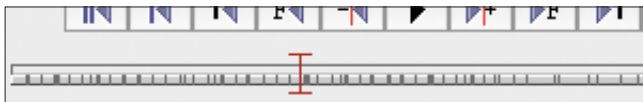
The steps are:

- 1 pixel of the Timeline viewer, defaults to 10 ms, depends on zoom level
- 1 frame, defaults to 40 ms (e.g. for audio)
- 1 second
- 1 scrollview (of the Timeline viewer) or “page”
- to the end/to the begin of the media

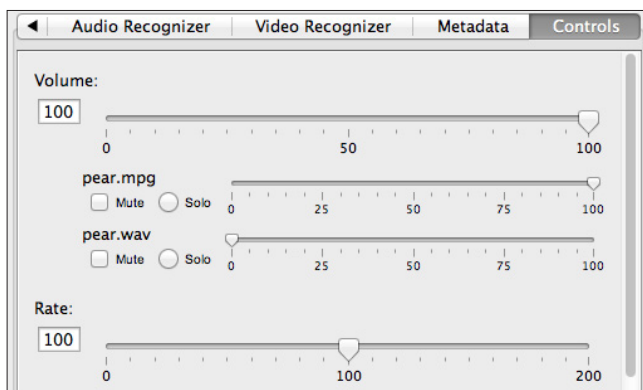
For all these steps there is a variant to the left and to the right.



2. It is possible to jump to a certain point in the media by entering a time value in the Go To... dialog box. The time value can be entered in milliseconds, in seconds.milliseconds or in hours:minutes:seconds.milliseconds format. The Go To... window is accessible via the Search menu or by double clicking the media time indicator just above the buttons.

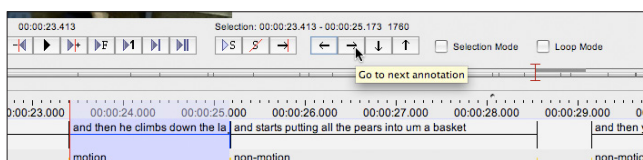


3. It is possible to jump to a certain point in the media by clicking somewhere in the Density viewer; the width of this viewer represents the total duration of the media making it possible to roughly estimate where to jump to (e.g. at 3/4th of the media). Dragging the crosshair in this viewer is another way to quickly inspect the media.



4. In the Controls tab there are two sliders for changing the playback rate (slow motion / fast motion) of the media and the volume of the sound.

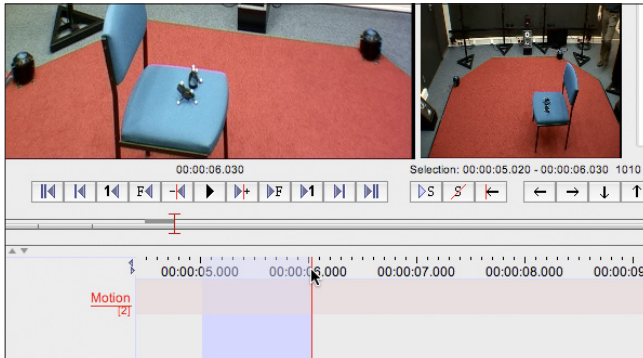
The volume control has sub-controls for each media file with an audio track. These sub-controls allow to either mix several audio tracks with the sliders, or quickly switch between tracks with the **Mute** and **Solo** buttons.



5. When activating an annotation the media crosshair jumps to the begin time of that annotation. Stepping from one annotation to the next is another way of navigating the media.

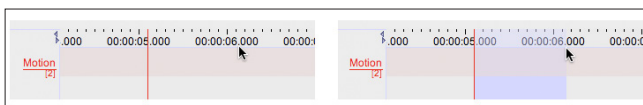
## How to: work with selections

When referring to a “selection” in ELAN this is mostly about a selected time interval. Every audio and video file has a time axis and it is possible to highlight a segment of it by creating a selection. The selection can be used for creating new annotations or changing existing ones.



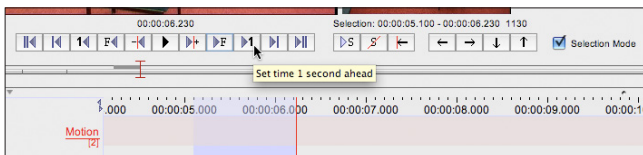
1. The most common way of creating a selection is by dragging with the mouse in any viewer area that has a time ruler. While dragging the crosshair moves with the mouse and the video is updated constantly.

The begin, end and duration of the current selection are displayed above the media and selection control buttons.

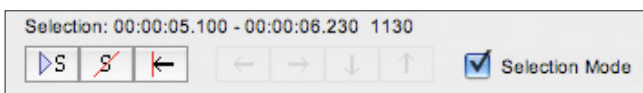


2. When there is no selection it can be created by shift-clicking: a selection is created from the crosshair to where there has been clicked.

When there is already a selection, shift-click can be used to add to or subtract from the selection.

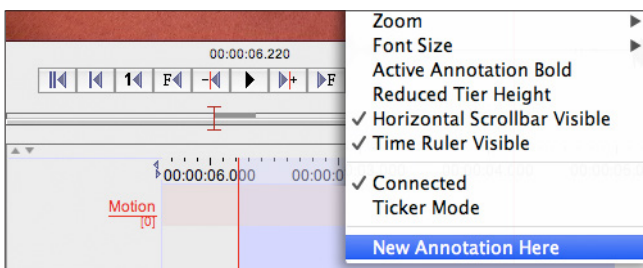


3. Using selection mode in combination with the VCR style player buttons. In the example clicking the “1 second ahead” button results in the selection being extended to the right with one second.

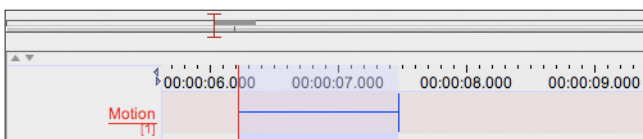


4. There are three Selection related buttons:

- Play Selection, to only play the selected segment. In combination with Loop Mode the selection is played multiple times.
- Clear Selection, deselects the current selection
- “Move crosshair to the left/right boundary of the selection”

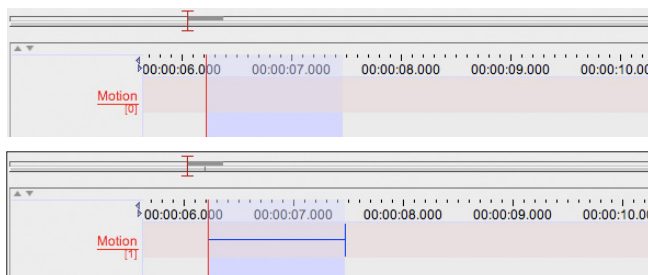


5. If a segment is selected and there is at least one tier, a new annotation can be created on that tier based on the selection. The annotation receives the begin and end time of the selection.



## How to: create and modify annotations

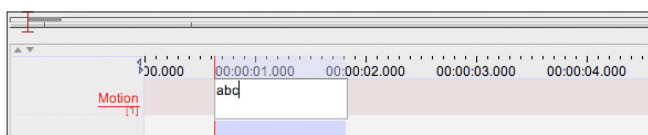
How to create an annotation depends on the type of the tier the annotation has to be added to. On time-alignable tiers new annotations (usually) are created based on a specific begin and end time. On non-alignable tiers annotations inherit time information from a parent annotation that they depend on.



1. A time-alignable annotation can be created on the junction of a selection and the active tier.

There are several ways to do so:

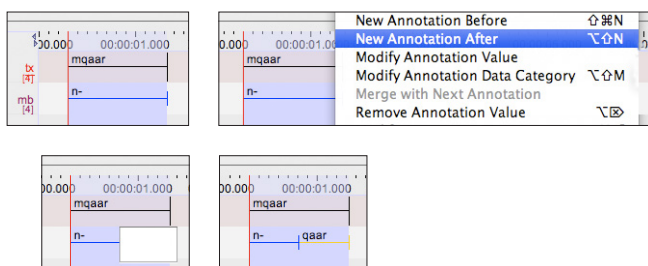
- In the Annotation menu select New Annotation Here
- Right click on a tier and from the popup menu select New Annotation Here
- Double click in the area where a selection and a time alignable tier intersect



Whenever a new annotation is created a text edit box will appear. Text can be entered and be committed by means of (Control+)Enter.

The same text edit box appears when double clicking an existing annotation.

2. A time-alignable annotation can be created on the active tier by using the keyboard shortcut Shift+Enter twice, at different points in the media time.

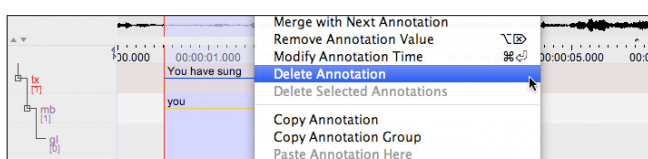


3. Some tier types support insertion of an annotation before or after an existing annotation. Activate an annotation on such tier and select:

- in the Annotation menu New Annotation Before or New Annotation After
- the same items in the right mouse button popup menu

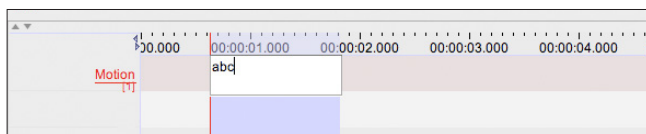


4. On a dependent tier a new annotation can be created by double clicking on the tier at a location where there is already an annotation on the parent tier.

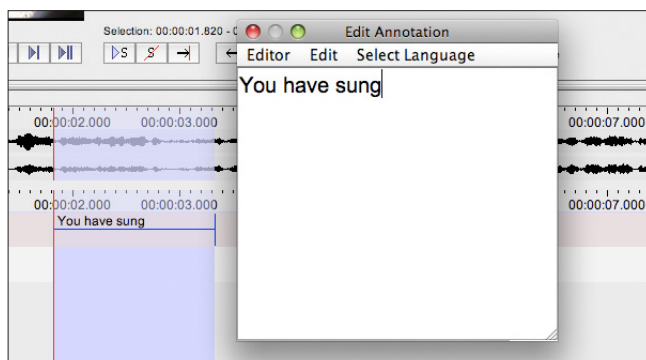


5. To delete an annotation activate it and select Delete Annotation in the right mouse button context menu or in the Annotation menu (Alt+D).

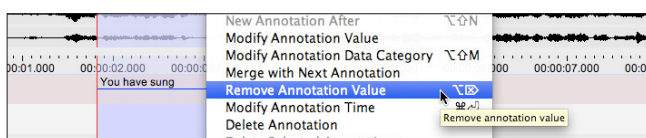
## How to: create and modify annotations II



6. To modify the text of an annotation double click it and the annotation text editor appears. Changes should be committed by (Control+)Enter.



7. For longer annotation texts the annotation editor can be detached from the main window into a separate, resizable editor window. Detaching and re-attaching can be achieved by Shift+Enter.

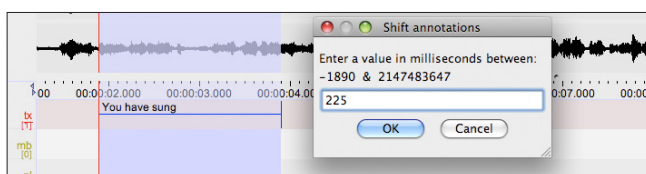


8. To remove the complete text of an annotation without opening the editor, select Remove Annotation Value in the right mouse button popup menu.



9. There are several ways to modify the time alignment of an existing annotation:

- by using a selection:
  - activate an annotation, this sets the selection
  - change the selection by dragging the mouse, shift clicking or by using selection mode in combination with the forward/backward buttons
  - press Control+Enter to update the annotation's alignment to match the selection
- by dragging with the mouse:
  - activate an annotation
  - hold down the Alt key and click-drag the annotation to the left or right
  - when Alt-clicking close to the left or right boundary, only the left or right boundary is dragged
- by shifting:
  - activate an annotation
  - from the Annotation menu select Shift > Active Annotation
  - in the dialog window enter the number of milliseconds to shift the annotation

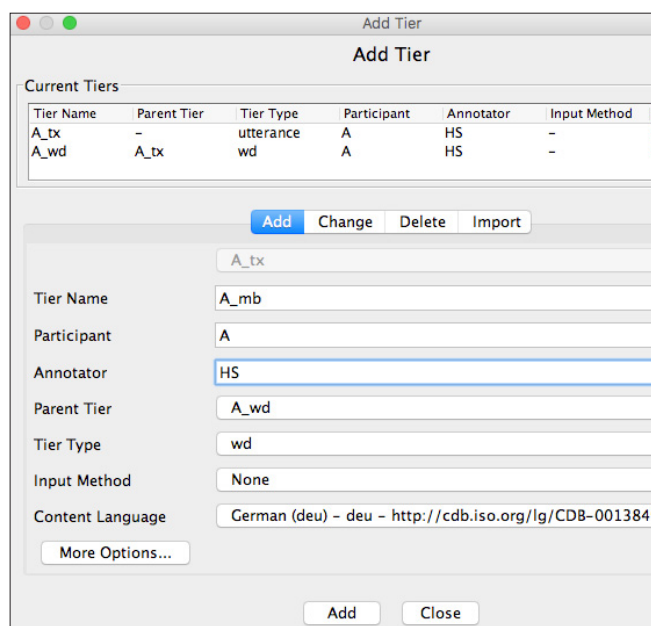




## How to: define and manage tiers

Tiers are containers for annotations, every annotation has to be added to a tier. By convention annotations on a single tier code for the same type of events (e.g. speech of participant A, left hand gestures of participant B etc.). Annotations on the same tier cannot overlap.

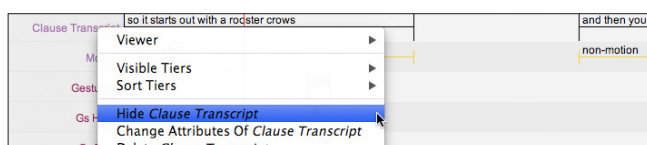
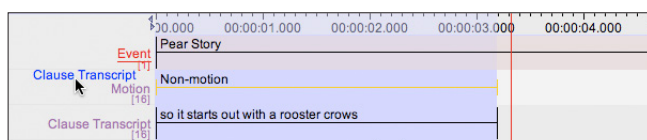
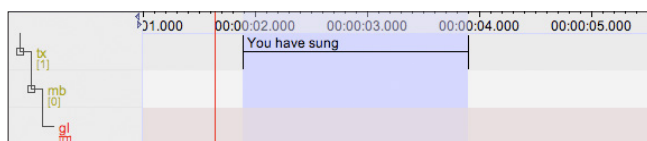
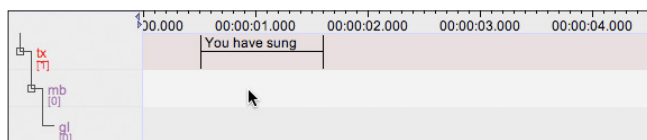
Any number of tiers can be created and tiers can be grouped hierarchically (parent-child relations). Different predefined structural relations and constraints can be selected for depending tiers. The constraints are in turn defined in tier types.



1. To add a new tier select Add New Tier from the Tier menu. The window shows an overview of the current tiers and a tab pane for adding, changing, deleting and importing tier definitions.

The following attributes can be set for a tier:

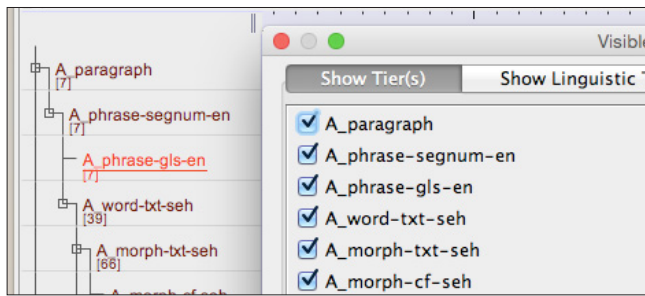
- Name - should be unique in the set of tiers
- Participant - name or code for the participant or subject this tier is referring to
- Annotator - name or code of the creator of the annotations on this tier
- Parent: the parent tier of this tier or none
- Tier Type - defines the type of this tier, the constraints that apply to it and its annotations
- Input Method - a property for input methods (virtual keyboard etc.)
- Content Language - the language spoken or signed on this tier



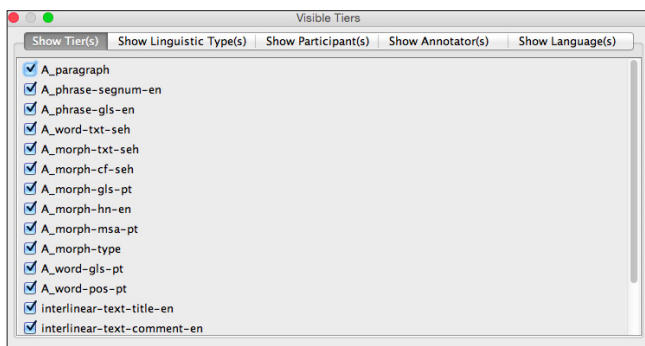
2. Tiers can be managed in different ways, depending on the viewer. In the main editing area, the Timeline viewer, it is possible to:

- activate a tier by double clicking its label
- activate the next or previous tier by the keyboard shortcuts Control+Arrow Down or Control+Arrow Up
- sort the tiers hierarchically, or by their participant, annotator or tier type attributes
- change the order by dragging a tier's label with the mouse
- hide and unhide tiers; this can be done either for a single tier in the context menu or for multiple tiers simultaneously in a separate window.

# How to: manage tiers II & apply tier operations



1. To change the visibility of more than one tier at once, right click the tier label area and select **Show / Hide More...** from the context menu. This will create a window with four tabs.

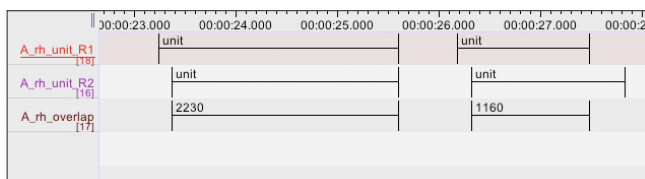


2. The first tab in the **Show / Hide More...** window lists all the tiers by their name. Each tier can be selected or deselected individually by ticking its checkbox. There are buttons for selecting all tiers or none and for sorting the list of tiers.

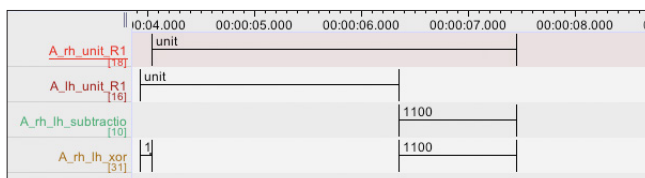


3. The other four tabs of the **Show / Hide More...** window allows to select or deselect tiers based on their properties. It is possible to show (or hide) tiers based on their type, all tiers that are connected to a particular participant, all tiers designated to a particular annotator or all tiers sharing the same content language.

Alternatively it is possible to create sets of tiers via the **Edit Tier Sets...** menu. The named tier sets can then be selected in the same context menu.

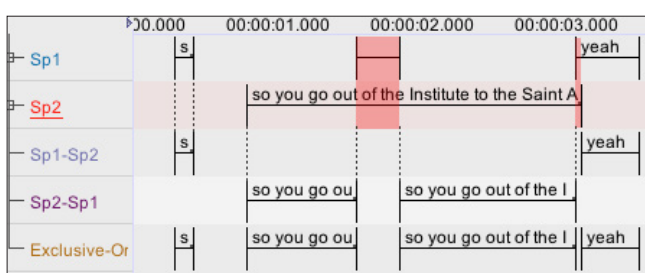


4. Once at least two tiers have been created and annotated, a few operations can be applied to their annotations in order to create new annotations for a next layer of annotations (e.g. combine right hand and left hand annotations to start the bimanual annotations) or to extract data based on the relation between tier.



These operations are:

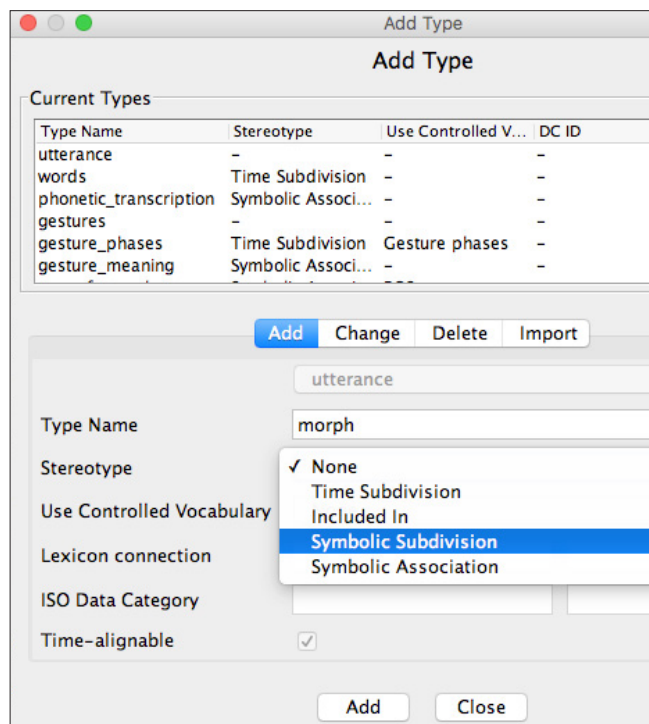
- annotations from overlaps (logical AND)
- annotations by merging (logical OR)
- annotations by subtracting (e.g. logical XOR)



These functions are accessible from the **Tier** menu.

## How to: define tier types (formerly known as linguistic types)

A tier type consists of a number of constraints that can be applied to a tier and its annotations. Several predefined structural relations and constraints are available. A tier has to be associated with a tier type and is thus assigned to a certain type of data, for instance orthography, translation, part of speech, glosses, gesture phases, gaze direction, movement units etc.



1. To add a new tier type select Add New Tier Type from the Type menu. The window shows a table with the current types and a tab pane for adding, changing, deleting and importing type definitions.

The following attributes can be set for a tier type:

- Name - should be unique in the set of types
- Stereotype - None or one of four constraint types (see below)
- Controlled Vocabulary - none or one of the available controlled vocabularies
- Lexicon Connection - connects a tier type to a specific field in a lexical entry
- ISO Data Category: the identifier of a data category in ISOcat
- Time-alignable - depends on the selected Stereotype, can not be set by the user

2. The predefined Stereotypes are:



“Time Subdivision”

- Time aligned subdivision of parent interval, no gaps

“Symbolic Subdivision”

- Ordered, symbolic subdivision of parent interval

“Included In”

- Time aligned subdivision of parent interval, gaps are allowed

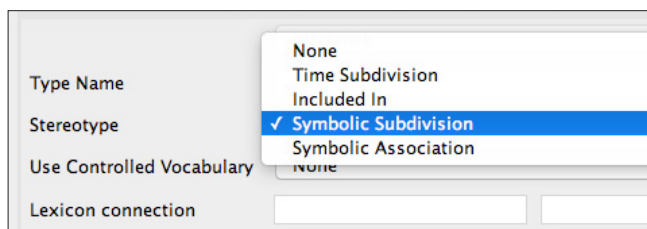
“Symbolic Association”

- One-to-one association with the parent annotation



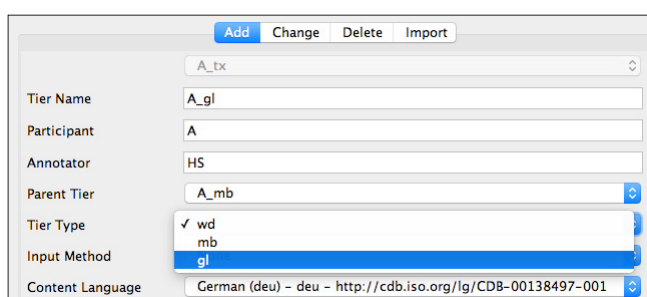
## How to: create dependent tiers (tier hierarchies)

Tiers can be set up as a child tier or dependent tier of another tier. Annotations on a dependent tier each are bound to an annotation on the parent tier, the time boundaries of the child annotation cannot exceed the boundaries of the parent annotation. In other words, the child annotations are always required to be inside the interval of the parent annotation.



1. To create a dependent tier, first make sure a tier type with a proper Stereotype has been created:

- “None” is exclusively for tiers *without* a parent
- the other types are only for depending tiers

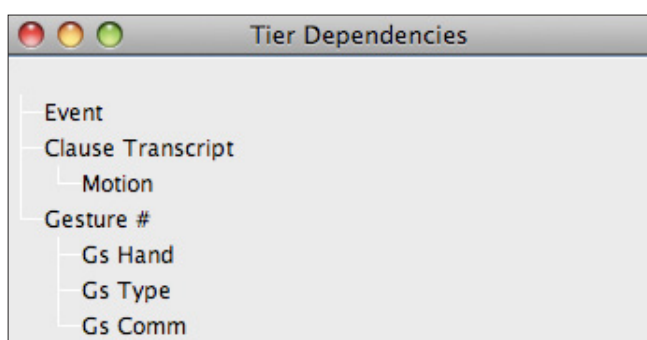


2. In the **Add Tier** window, first select the parent tier for the new tier and then select one of the available valid tier types. The Stereotype of the tier type determines the kind of annotation that can be created on the tier.

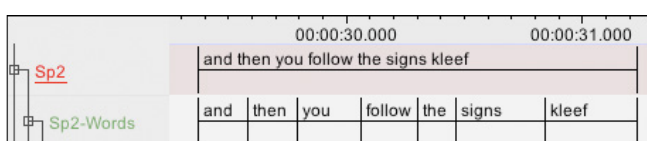
As long no parent tier has been selected only the tier types with Stereotype “None” are listed.

A few additional constraints apply when setting up tiers:

- A tier of a “symbolic” Stereotype (Symbolic Subdivision, Symbolic Association) can not have a child tier of a time-alignable type (Time Subdivision, Included In).
- Once a tier has been created and contains annotations, it is not possible anymore to change its tier type to a type with another stereotype.



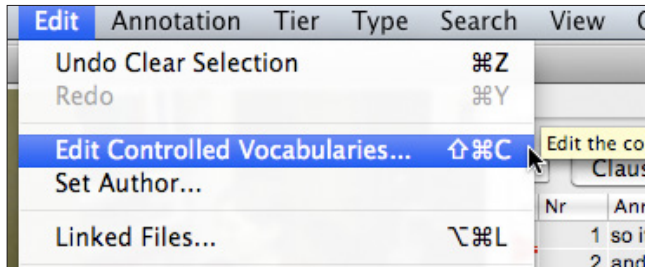
3. An overview of the tier dependencies in the annotation document can be created via the menu **View > Tier Dependencies...**



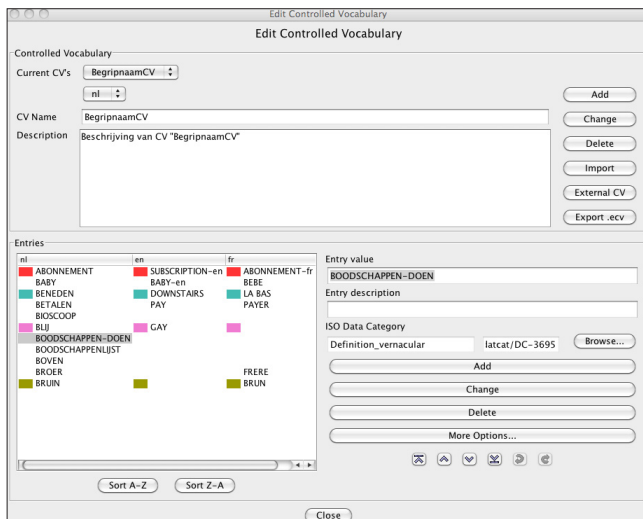
4. The tier dependencies can be used as a sorting criterium in the timeline view. The tier names are shown as a tree structure, similar to the tier dependencies window.

## How to: work with Controlled Vocabularies

A Controlled Vocabulary is a list of possible annotation values (or codes) that the annotator wants to use on one or more tiers. CV's can be created and modified by the user and are part of the annotation document. CV's can reduce typing errors and thus improve annotation consistency.



1. To define a new Controlled Vocabulary or change an existing one select Edit Controlled Vocabularies in the Edit menu.



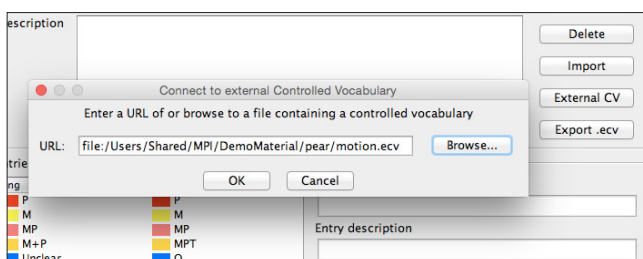
2. The Edit Controlled Vocabulary window consists of two main parts. The upper part is for adding and changing the vocabularies.

The lower part of the window is for adding and modifying the entries of the selected controlled vocabulary.

An entry consists of a value and an optional description. Besides that it is possible to link an entry to a data category defined in ISOcat.

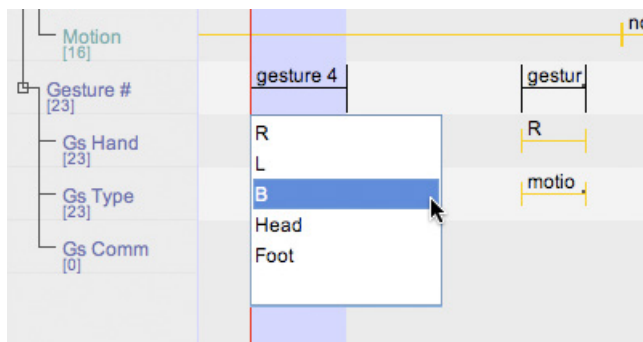
It is possible to have multilingual vocabularies; for each language added to the vocabulary a column is created in the list of entries.

In annotation viewers the language is shown that corresponds to the selected content language.



3. Controlled vocabularies can also be external, e.g. on a web server or on the local network. The entries are in that case not included in the eaf, only a link to the external vocabulary (.ecv) is stored.

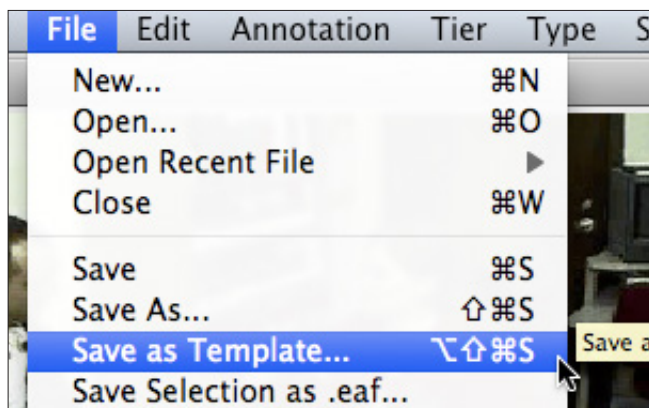
Entries of external vocabularies can not be changed by the user in the Edit Controlled Vocabulary window.



4. When a tier has been associated with a controlled vocabulary (via its tier type), a drop down list appears the moment an annotation on that tier is created or edited allowing the user to select one of the values.

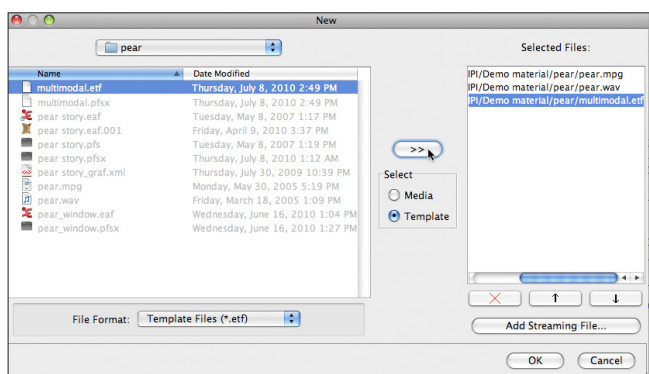
## How to: create and use templates

A template is an annotation document without links to media files and without annotation but with the definitions of tiers, tier types and controlled vocabularies. It can be created from any annotation document and can be used as the basis for new annotation documents.



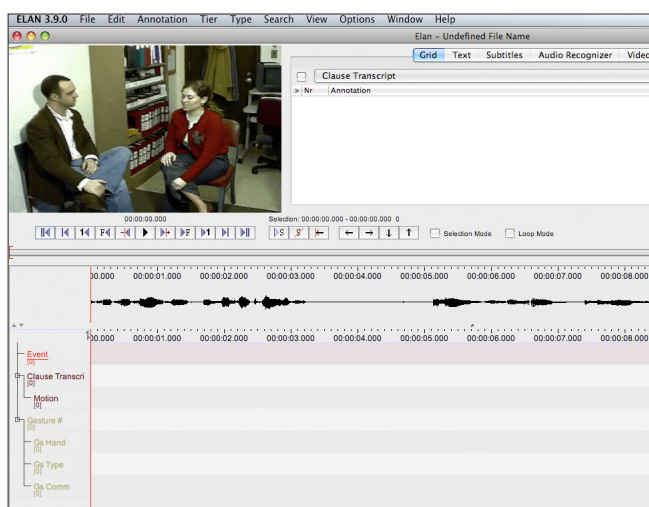
1. To create a template chose File > Save as Template...

The extension for template files is .etf.



2. To create a new annotation document based on a template, follow the steps to create a new document.

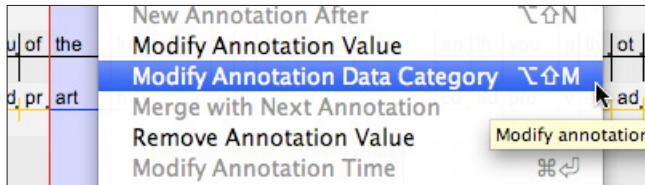
In the File browser, click the Template button and navigate to a folder containing a template file. Select the .etf file and click the “copy to right” button (“>>”) or double-click the template file. The right panel now lists a template file and the selected media file(s) for the new document.



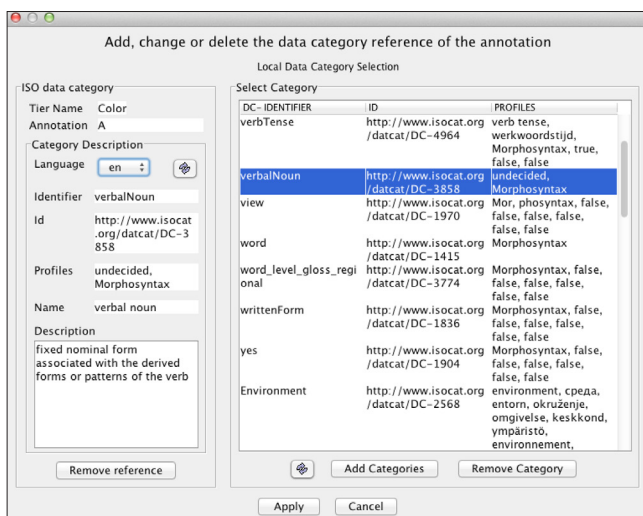
3. A new document is created with the media player(s) and all the tiers from the template.

## How to: link annotations and tiers to a data category

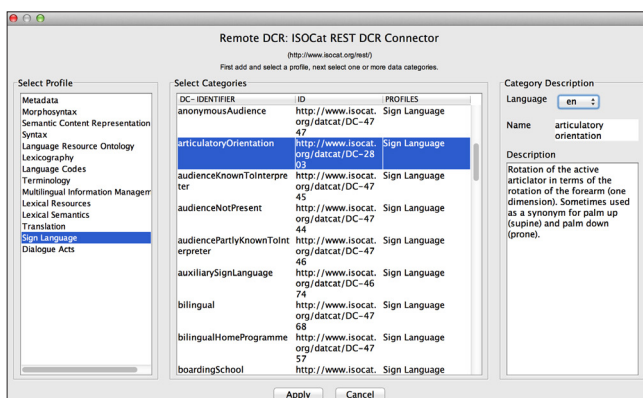
It is possible to associate annotations and tiers with a data category in ISO's Data Category Registry (ISOCat, [www.isocat.org](http://www.isocat.org)). The DCR defines widely accepted linguistic concepts. Each data category is assigned a unique identifier and it is this id that annotations and tiers can refer to.



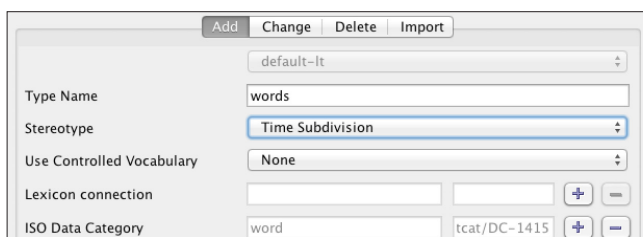
1. Individual annotations can be associated with a data category. When there is an active annotation select **Modify Annotation Data Category** in the Annotation menu or in the context popup menu.



2. A window showing the local selection of data categories appears. The local selection acts as a cache for a part of the online registry. A category can be picked from the list and applied to the annotation. The local cache can be modified via the **Add Categories** and the **Remove Category** buttons.



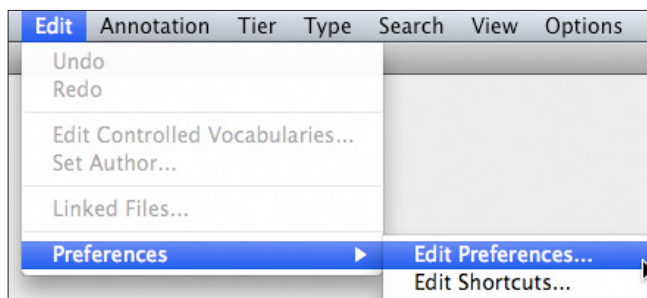
3. The window showing the contents of the remote registry; the data categories are grouped in profiles that are listed on the left. After selecting a profile the categories of that profile are downloaded. The user can select multiple categories to add to the local cache.



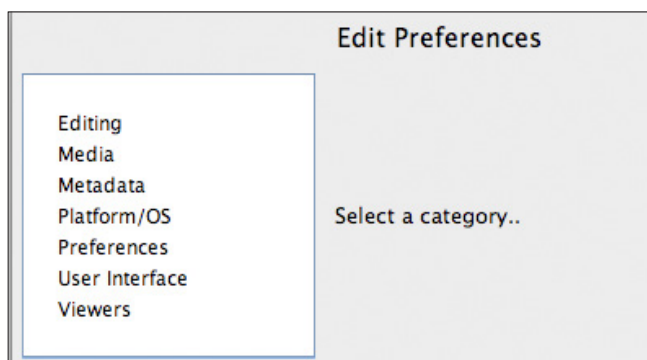
4. Tier types and entries in a controlled vocabulary can be associated with a data category much in the same way as individual annotations.

## How to: customize ELAN's behaviour via preferences

The behaviour of parts of the application can be customized to the user's liking and needs through preferences. The preferences are accessible via the **Edit** menu and are grouped in categories. Some of the main preference options are highlighted here.

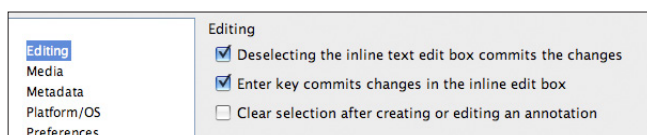


1. In the **Edit** menu select **Preferences > Edit Preferences...** to open the preferences window or **Preferences > Edit Shortcuts...** to open the window that allows you to change the keyboard shortcuts.



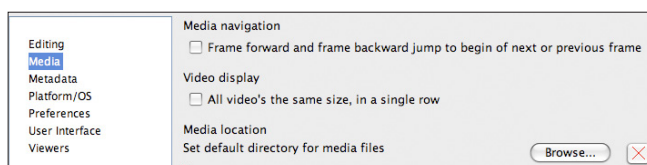
2. The Edit Preferences window lists the available categories:

- Editing
- CV (Controlled Vocabulary)
- Media
- Metadata
- Platform/OS
- Preferences
- User Interface
- Viewers

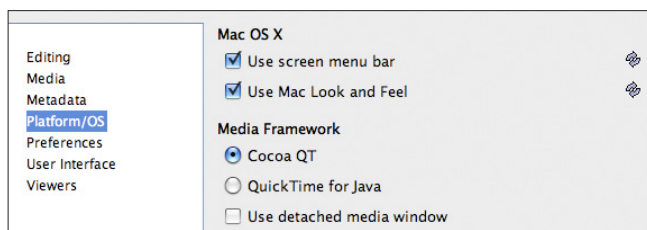


3. In the **Editing** pane one can specify that:

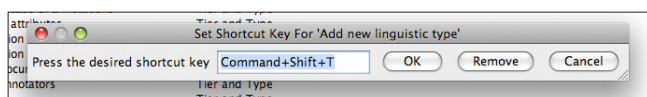
- hitting the Enter key (without Ctrl) commits changes in the annotation edit box
- deselecting the edit box (e.g. by clicking outside of it) commits the changes



4. In the **Media** pane it is possible to change the behaviour of the frame forward and backward buttons to always jump to the beginning of the next or previous frame.



5. In the **Platform/OS** pane platform and media framework specific options can be set.

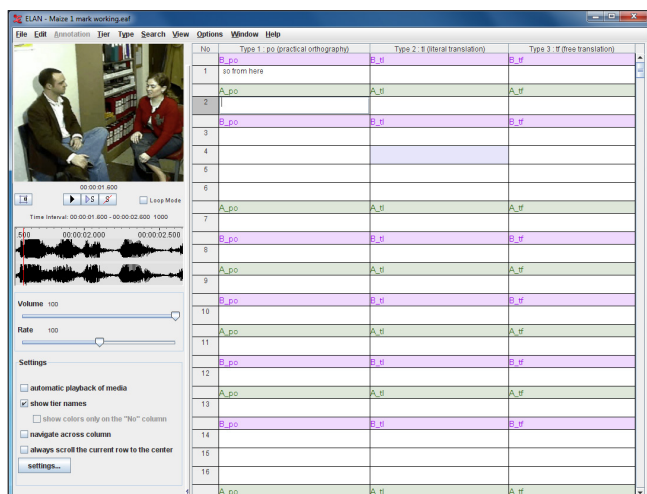


6. The keyboard shortcuts for many actions can be changed or can be set.



## How to: use the Transcription mode

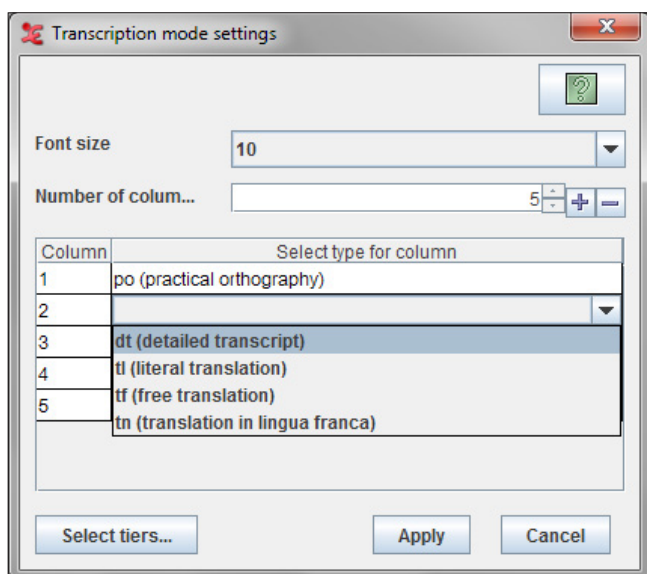
There are several different working modes, some of which are designed with a specific task in mind. The default mode is the **Annotation Mode**, a generic mode in which almost all functions are available. Most functions discussed in this document so far are shown in the **Annotation Mode**. Switching between modes can be done via the **Options** menu. The other modes are:



The **Transcription Mode** is optimized for typing text into existing annotations. Annotations are presented in a spreadsheet-like, tabular layout in which navigation (from one cell to another) is entirely keyboard driven.

When a cell (i.e. annotation) is activated the corresponding segment of the media starts playing.

The selection of the tiers that the user wants to be visible in the table is based on the type of the tiers; tiers of the same type are shown in the same column. E.g. the first column can contain all tiers of type “orthography”, the second column all tiers of type “translation” etc.

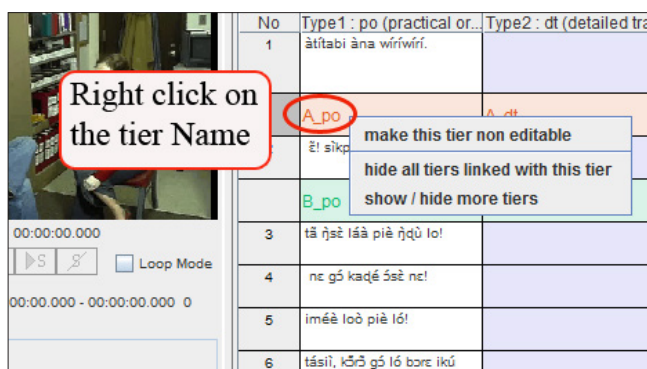


The Configure... button creates a window in which the tiers can be selected that the user wants to be visible in the table.

The selection of the tiers is based on the type of the tiers; tiers of the same type are shown in the same column. E.g. the first column can contain all tiers of type “orthography”, the second column all tiers of type “translation” etc.

This window also allows to specify the number of columns for the table. For the first column any tier type that is being used (by a tier) can be selected. For the next columns types can be selected that are fully time aligned with the first type, i.e. of type Symbolic Association.

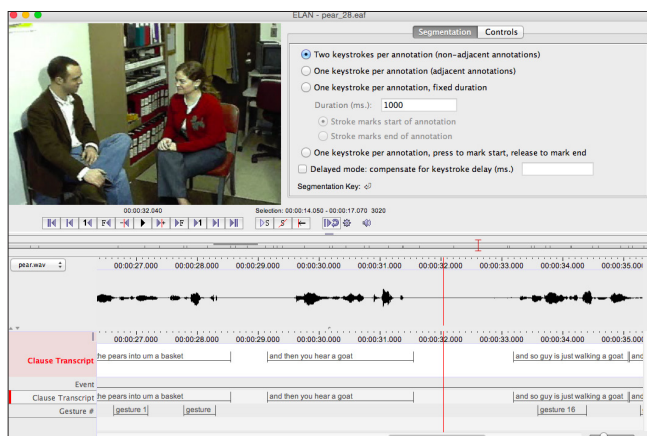
The Select Tiers... button makes it possible to create a more fine-grained tier selection per column.



After configuring the table there are several options for customizing the appearance of the cells and the overall behavior in this mode. Tiers can be made non-editable, navigation from cell-to-cell can be performed across the columns or can stay within on column.

The main keyboard shortcuts for this mode are TAB for playing the current segment again and ENTER for saving the changes to the current annotation, activating the next annotation and playing the corresponding interval.

# How to: use Segmentation and Synchronization mode



## Segmentation Mode

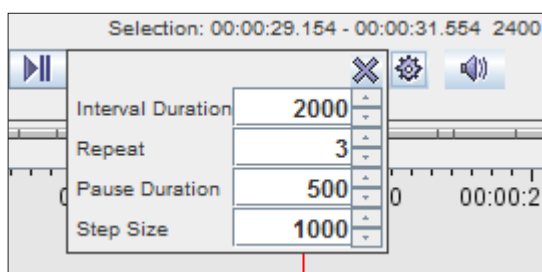
The **Segmentation Mode** is designed for rapid and easy creation of empty annotations while the media is playing. Marking the begin and end time of annotations is done using the keyboard.

It is possible to change the boundaries of an annotation by dragging them with the mouse. Creating and changing the boundaries of an annotation in this mode does not require making a time selection first (like is the case in the **Annotation Mode**).

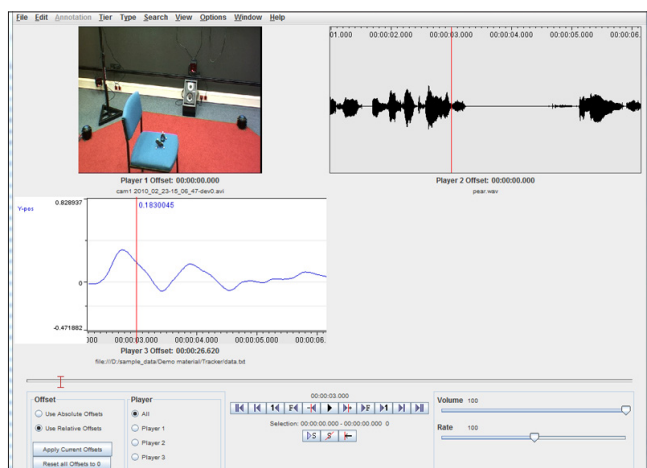


The tier to which the new annotations are added is always displayed at the top, marked in red. Switching between tiers can quickly be done using the up and down arrow keys. The annotation the mouse is over can be dragged to a new position and be deleted using the Delete or the Backspace key.

The tiers in the list can be reduced to a minimum via the Show/Hide more... popup menu.



The Segmentation mode has an experimental "Step-and-Repeat" playback mode that can be configured to play segments of  $t$  milliseconds  $n$  times and then move the cursor  $t2$  milliseconds forward and continue from there with the same procedure.

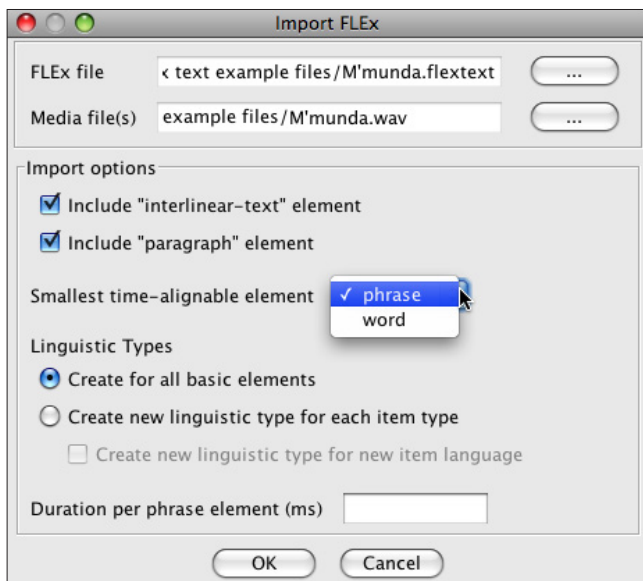


## Synchronization Mode

The **Synchronization Mode** allows the user to synchronize media files (video, audio, timeseries) of which the recording didn't start exactly at the same time. By setting an offset for some of the files in this mode, the media files will be played in sync in ELAN.

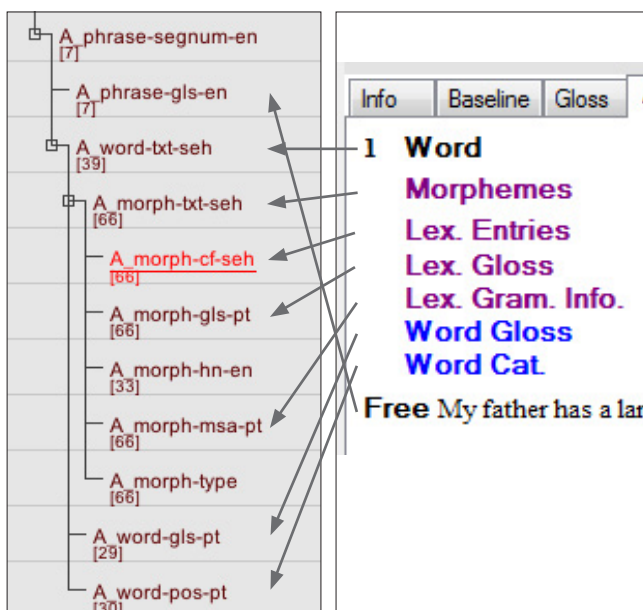
The media files will not be clipped, this synchronization has only consequences while working with them in ELAN.

## How to: import from and export to FLEx



### Importing a FLEx .flextext file

1. In the **File** menu select **Import > FLEx Text...**
2. In the import window select the .flextext file exported from FLEx. Optionally also add media files here (if not already in your .flextext file). There are options to exclude the interlinear-text and paragraph elements from the import. If as smallest time-alignable element the "word" element is selected, the time-alignment for that level will be lost when exported again to FLEx.
3. It is possible to have tier types created simply for all major elements (phrase, word, morph etc.) or, more fine-grained, for each combination of major element plus "item type" up to a combination of major element, the type and the language.

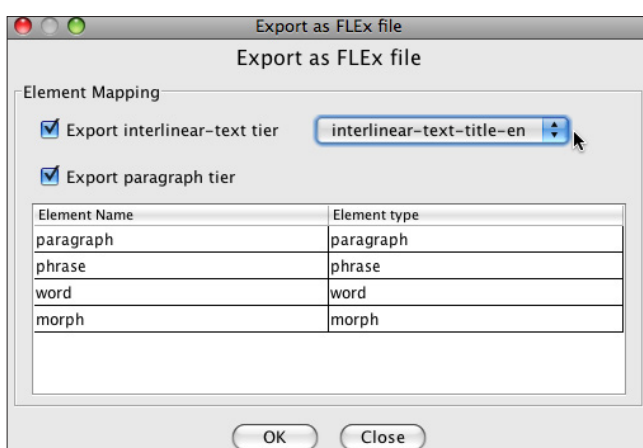


The tier structure created after import in ELAN is roughly like in this example. The mapping of the FLEx structure onto ELAN tiers follows the schema: **<Speaker>\_<element>-<item-type>-<language>**

Where the Speaker prefix is a generic label (A, B, C, ...).

FLEx tiers and their representation in .flextext:

Word	<word>	<item type="txt">
Morphemes	<morph>	<item type="txt">
Lex. Entries	<morph>	<item type="cf">
Lex. Gloss	<morph>	<item type="hn">
Lex. Gram. Info.	<morph>	<item type="gls">
Word Gloss	<word>	<item type="msa">
Word Cat.	<word>	<item type="gls">
	<word>	<item type="pos">



### Exporting as a FLEx .flextext file

- In the **File** menu select **Export As > FLEx File...**
- In the export window there are options to omit a few tiers from export and there is a table to specify which tier type corresponds to which FLEx element.
- In the current situation the assumption is made that the tier names follow the same pattern as created by the import function.

A detailed description "Working with ELAN and FLEx together" can be found on the ELAN third party resources page: <https://tla.mpi.nl/tools/tla-tools/elan/thirdparty/>