

# SPEECH TRANSCRIPTION USING MED

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\* This paper has taken into account shorter instructions to MED by Conny Bast, Sebastian Fränk, Katrin Lehmann, Maria Voeikova and Ursula Stephany, which have been extensively discussed with the author of the program, Daan Broeder. Sarah Downing brushed up my English. Christian Spevak made helpful suggestions concerning the use of computer terminology.

### **Notation conventions**

Keys to be pressed and options of the program menu are set in italics.

A + between two keys means that they should be pressed together. This is usually accomplished by holding down the first-named key and then pressing the second.

## **What is MED?**

### **About MED**

MED (Media EDitor) is a program designed to facilitate the transcription of digitized soundfiles into textfiles. It was written by Hans Drexler and Daan Broeder, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands.<sup>1</sup>

### **System requirements**

MED is available for Windows 95, Windows NT and UNIX.

### **Installation**

On the installation disk you will find a folder named *mpi*. Copy the folder onto your hard drive. (If you have got a zipped version of MED, extract all files contained to a folder on your hard drive.) Within the *mpi* folder you will see a folder named *med*. Open it and double click on *med.exe*. The program should run.

### **Basic description of the program**

The aim of MED is to facilitate the transcription of sound into text using a single program. It works on the principle of the coexistence and interaction of two basic elements, the waveform display window and the text window.

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<sup>1</sup> If you are interested in obtaining the program, please contact Peter Wittenburg at [Peter.Wittenburg@mpi.nl](mailto:Peter.Wittenburg@mpi.nl).

This means that you no longer need to use both a sound editor and a word processor at the same time in order to transcribe digitized speech files. Instead, you can directly type the sound you hear (and see) via MED into the text window.

Furthermore, you can directly link sound portions of the waveform display window to text portions of the text window, so that you can easily locate and listen to the original source of your transcription once the links have been set.

In this function the waveform display window and the text window virtually interact with each other.

## Walkthrough

This section is designed to be a (quick) walkthrough. It is meant to familiarize you with the program and its typical applications. Some of the steps taken are illustrated by screen shots.

### Opening the text window and the waveform display window

Open the folder *med* and double-click *med.exe*. Go to the pull-down menu *File*. Choose either *New file* if you want to transcribe into the empty text window or *Open...* if you want to continue transcribing an existing file.

In order to transcribe a digitized soundfile (\*.sd, \*.aif, \*.aiff, \*.wav, \*.au) choose the pull-down menu *View*, click on *Waves Display*, locate your soundfile and open it, so that the waveform display window will open.<sup>2</sup>

As the text window and the waveform display window are normally used alternately during the transcription process, it has proven to be advantageous to tile them horizontally.

This setting facilitates a comfortable alternation between the two windows.

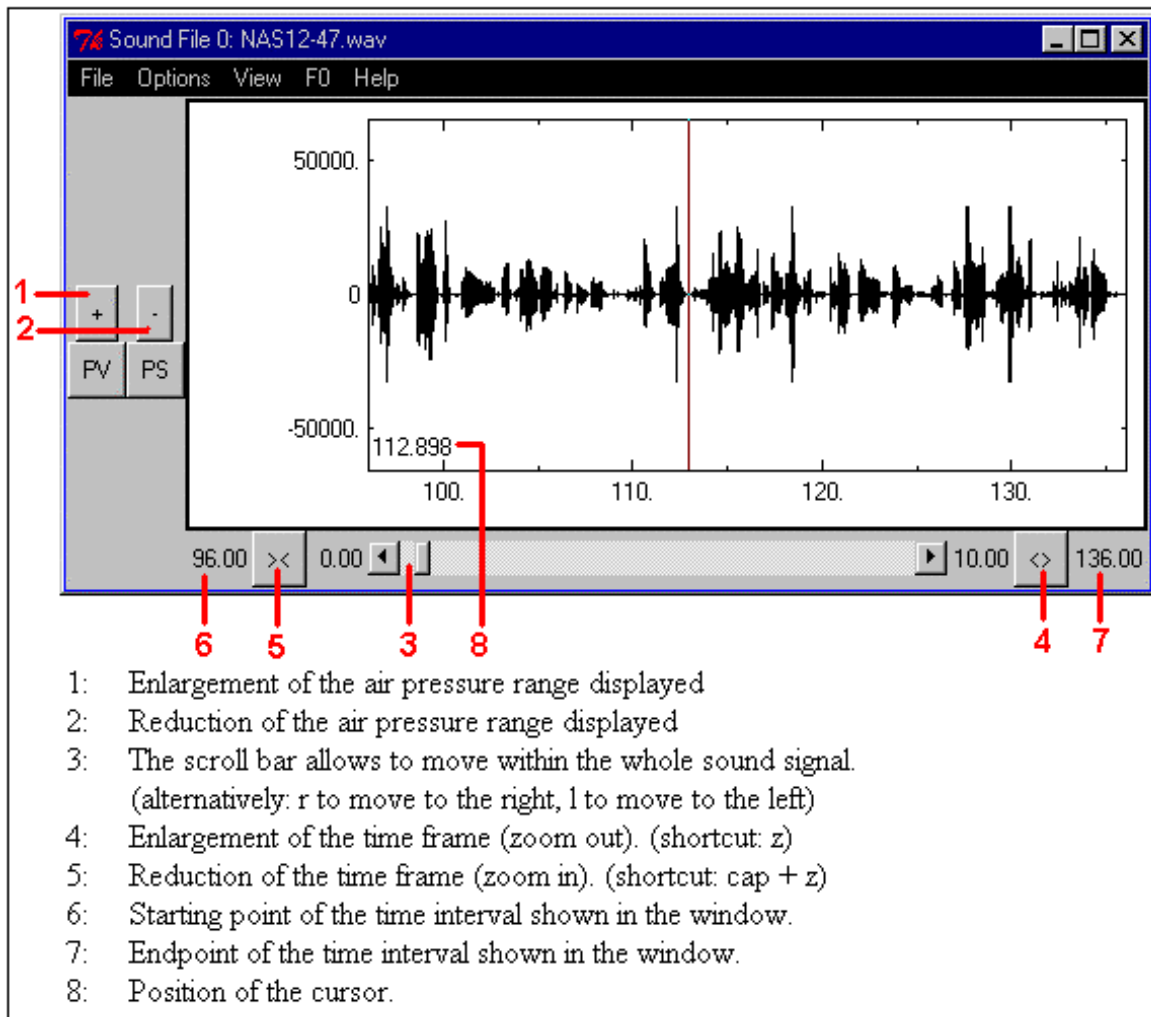
### Screen Display/ Things to see in the waveform display window

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<sup>2</sup> MED doesn't seem to accept any sound file format. Make sure it works with your preferences before digitizing large amounts of data. For the wav-format a record format of 22050 Hz, 16 bit, mono has turned out to run without problems. In case of problems, try to adjust the Sound format options to those of your sound file via the pull-down menu *Options* -> *Sound Format* in the waveform display window.

In the waveform display window, the soundfile is represented in the shape of a graph. The abscissa axis displays the time in seconds, the ordinate the air pressure.

You can move a vertical cursor within the window.



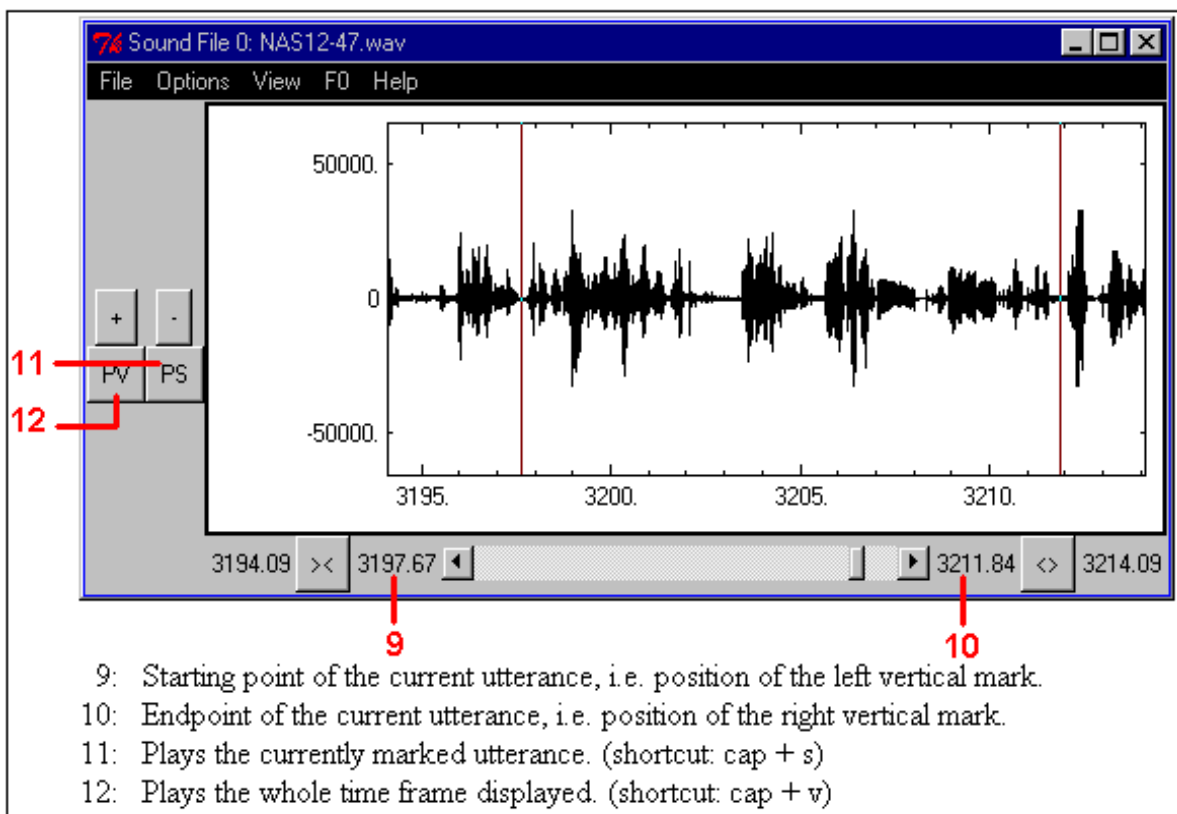
**Figure 1**

When transcribing your soundfile, you need to continuously define sections of the file to be listened to. To mark a segment sound, move the vertical cursor to the intended starting point, click on the left mouse button and hold it down while dragging the cursor to the endpoint of

the section to be marked. (If you click  $r$  while holding down the left mouse button, the time frame will move forward and you will be able to mark longer sections of the sound signal.)

After releasing the left mouse button the sound interval will be marked by two vertical lines.

Alternatively, you can mark sound segments by moving the cursor to the intended starting point. Then click on  $b$ , go to the intended endpoint and click on  $e$ .



**Figure 2**

### Transcribing files

The transcription process consists of an iterated alternation between the waveform display window and the text window.

First, define a sound segment in the waveform display window and choose the *PS* button to listen to it. Then, activate the text window by clicking in it and transcribe your text.

If you want to listen to the marked segment a second time, press the *PS* button again. In order to mark the following segment, just move the cursor back into the waveform display window and it will be activated automatically.

Mark the subsequent segment and work your way through the file.

Use the options listed in figure 1 to adjust the size of chosen sound segments to meet your individual requirements.

Choose *s* to zoom in a marked segment and adjust it to the size of the whole window.

Choose *x* to stop the replay.

In order to save your transcript, go to the pull-down menu *File*, choose *Save as...*, locate the place you want to save your file in and name it. Choose the format by typing in *\*.cha*.

If you follow the CHAT format for your transcription, you will be able to morphosyntactically code and analyze your data by using the CLAN programs of the CHILDES project (cf. Stephany, Ursula & Conny Bast (2001): *Working with the CHILDES Tools: Transcription, Coding, and Analysis*. This volume.).

Even if you do not want to follow the entire CHAT conventions, it is essential to begin paragraphs of the transcript using an asterisk, followed by the participant's name or an abbreviation of it and a colon as in the following example:

\*DAS: ja so können wir ein buch so sehen und fotos vielleicht.

Failure to do so may result in some functions of the MED program not working properly.

### **Sound-linking**

The sound-linking device of the MED program enables you to establish an immediate connection between a certain point of the transcript and the corresponding point in the original sound signal. This is useful for verifying parts of transcripts or proof-reading entire transcripts. The function is enabled by a link to a marked sound segment which you must set in your text window.

In order to link a text section to the corresponding sound section, mark a sound segment in the waveform display window in the usual way (cf. section *Screen display/ Things to see in the waveform display window*, page 3) and then type your text into the text window.

Move your cursor to the waveform display window and click on your right mouse button to open a pop-up menu. Choose *Set MED segment*. This will insert a sound line in the text window at the point at which you left your cursor.

The result will look like this:

```
*NAS: und eh@fp # dort ist [*] die statuen.
*NAS: in dieser Arke [*] [: Arc_de_triomphe].
*NAS: ist kein museum.
%snd: "NAS04-13.wav" 702393 712510
```

The sound line consists of three elements: the sound line indicator %snd, the name of the sound file placed in quotation marks, and the exact location of the linked sound segment within the sound file.

The latter is indicated by the starting point and the end point of the segment, indicated in milliseconds. The time extension of each sound line corresponds to the previously marked sound segment. It does not take the last sound line as a starting point!

When double-clicking any point of the sound line in the text window, the cursor of the waveform display window will move to the starting point of the corresponding sound signal and replay it. If the waveform display window is not opened, it will be opened automatically. This function only works when MED has immediate access to the original sound file. The reason for this is that the sound file referred to in the text window is only a trace of the original sound signal, not a copy.

The numbers given on the sound line may be altered by simply overwriting them. This allows to listen to the sound file in small portions while transcribing it – something which most of you will be accustomed to – while at the same time linking larger chunks of sound to the corresponding text.

The latter is done by setting a sound segment (via the *Set MED segment* command) after the last utterance you would like to include in the linked part and then altering the starting point of

the sound line. If you type the end point of the previous sound line as a new starting point, you will get a continuous chain of sound links in your transcript.

Another method of sound-linking is to use the links as reference points, rather than as real correspondences of text and sound sections. This will allow you to roughly locate an utterance in the sound file, which is still much more convenient than carefully listening to a whole tape in order to locate a single sound string.

Close your file by activating the pull-down menu *File* and clicking on *Close*. Choose *Exit* in the same menu to end the program.

## **Some useful hints**

### **General preferences**

In order to enable some useful functions of the MED program, go to the text window and click on *Options*. A pull-down menu will open. Click on *General preferences*.

Choose *Play current utterance* by clicking on the radio-button for *Yes* in order to replay a defined sound segment as soon as you double-click in the corresponding sound line in the text window.

Choose *Mark current utterance* by clicking on the radio-button for *Yes* in order to mark the current utterance of your transcript. You can define your own colour by clicking on the upper *change* button.

It is necessary to save a text file in order to keep your personal preferences set.

### **Word processing commands**

In the text window's pull-down menu *Edit* you will find some word processing commands, such as *Cut*, *Copy*, *Paste*, *Undo*, *Redo*, *Find and Replace* and their respective shortcuts.

### **Sound cloning**

If you want to compare parts of the sound signal, the clone-device has proven to be ideal for this purpose.



Go to the pull-down menu *File* in the waveform display window and click on *Clone*. A second waveform display window will open, which contains an exact copy of the original. You may now move on in the original window and take the clone as a direct basis of comparison for later reference.

In order to close the clone window, choose *Close* in the pull-down menu *File* in the clone window.

### **F0 calculating**

Go to the pull-down menu *F0* in the waveform display window and choose *Add F0 procedure...* to get a F0 presentation of your sound file.

Choose *Remove F0 procedure...* in the same menu to remove it.

### **Interruption of an ongoing sound replay**

There is no explicit button or other device for interrupting an ongoing replay of a sound signal. However, if you click on one of the pull-down menus during the replay process, the replay will pause until you click on any point outside the pull-down menu.

### **Optically emphasizing tiers in the transcript**

As soon as a transcript is opened, the pull-down menu *Tiers* in the text window will offer to optically mark individual tiers contained in the transcript.

Click on the tier you would like to emphasize and choose the way the emphasis should be performed. Then choose *Apply*.