MAXQDA
Introduction

for Windows 98/ME/NT and 2000

MAX.QUALITATIVE DATA ANALYSIS INTRODUCTION

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Installing MAXQDA

Welcome to MAXQDA - a powerful tool for Qualitative Data Analysis!

If a demo version of MAXQDA has been installed on your computer, please remove it before installing the full version. Installing MAXQDA parallel to the partner product winMAX will not cause any problems.

How to install MAXQDA:

1. Put the MAXQDA CD-ROM in your CD-ROM drive. In Windows the CD will normally start automatically. If it does not, go to Windows Explorer, select the CD-ROM drive and double-click on "Launch.exe."
2. The CD-Browser will appear. Select the option "Install Full Version."
3. The setup program will now start. Wait until the loading is finished and the setup program appears on your screen. Then follow the instructions of the Installshield-program.

Please register your software after the successful installation. The CD-browser offers the option REGISTER NOW. Simply click on it and you will be connected to the online registration on MAXQDA's website. As a registered user you may use the support service and you will regularly receive information about improvements and updates.

In the HELP menu ("?") of your software you will also find links to the registration and to the support center. Click INFO to get to these links. There you will also find your product ID, which you need in order to get support.

The setup procedure copies some sample data (4 text documents named interview 1 to 4) and a sample project („media project") to the MAXQDA folder on your hard drive.

Documentation and Help

This booklet helps you through the first steps with MAXQDA. After reading this introduction you will be able to begin the analysis of your textual material.

On the MAXQDA CD you will find a comprehensive tutorial and the 250-page MAXQDA manual, which gives you detailed information about how the different functions and procedures of the program work. The manual comes in color and contains many screenshots and figures. It is formatted in PDF-format, a format widely used for text files. During the installation the manual will be copied automatically to your hard drive. You will find it in the selected installation folder (default: C:\Program Files\Maxqda\).

To view the MAXQDA manual you need Adobe Acrobat Reader. If Acrobat is not installed on your PC, you should first download the program from the Adobe website at: http://www.adobe.com

Simply follow the instructions of Adobe to install the software.

To read the MAXQDA manual you have two alternatives:

1. If you have already started MAXQDA choose the help option "?" from the menu bar, and then select MAX MANUAL or
2. Start the Windows-Explorer, go to the MAXQDA folder (default: C:\Program Files\Maxqda\) and double-click "mxmanual.pdf."

The user manual will then be displayed. There are different ways to navigate through the handbook:

- The manual begins with a table of contents. Simply click on a chapter's heading to jump to this chapter.
- In the left pane of Acrobat Reader the Contents of the manual are displayed. Simply click on a chapter's name to bring the chapter into the right window.
- By pressing CTRL+F the search function is started. You can type in a word or string and Acrobat will search the entire text and display the text passage where your search term has been found.

The best way to display the manual on screen is achieved by setting the zoom factor of Acrobat Reader to 134%.

The MAXQDA Tutorial

The MAXQDA CD-ROM also contains an introductory tutorial. The tutorial is also available from MAXQDA's website www.maxqda.com. The tutorial gives you a step-by-step introduction and helps you to quickly understand the basics of MAXQDA.

To run the tutorial you need an Internet browser like Netscape or Internet Explorer. You also need the Flash 5 Player. The Flash player is likely already installed on your PC; if not you can download a free copy from www.macromedia.com.

To start the tutorial put the CD-ROM in your drive and select TUTORIAL / QUICK TOUR from the CD-Browser. The tutorial will first check if the Flash 5 Player is installed.

The Introduction Booklet

A pdf-version of this introduction is also contained on your CD-ROM. Thus if you need additional copies, simply print out the pdf-file. You will find the file named "mxintro.pdf" in the maxqda folder on your hard drive. You can also click on the option MAX INTRO in MAXQDA'S HELP menu.

The pdf-version is colored- printing on a color printer will give you better results.

1. Starting and Exiting the Program

When starting MAXQDA for the first time, take a look at the screen depicted in Fig. 1.

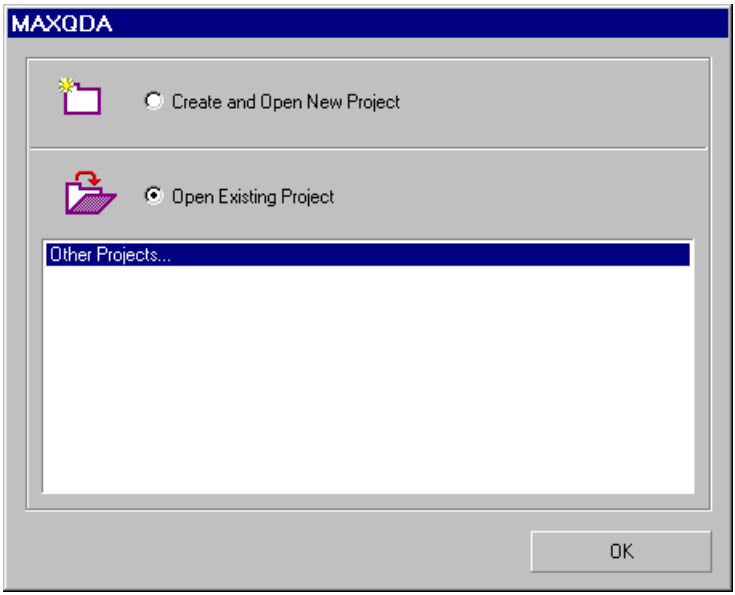

Fig. 1: Starting MAXQDA

The figure above shows that MAXQDA offers two options:

- CREATE AND OPEN A NEW PROJECT, or
- OPEN AN EXISTING PROJECT.

MAXQDA works with so called "projects" as Excel does with workbooks or Word does with text files. Normally a project in MAXQDA contains a set of texts (attached to different text groups), codes, memos, variables and other data. A project is the "unit of analysis" and is stored in one file.

When installing MAXQDA a sample project ("Media Project.m2k") is copied automatically to your hard disk. In the following section we will nevertheless not refer to that project but rather start from scratch.

First you will learn how to create a new project: Choose CREATE AND OPEN A NEW PROJECT from the dialog box and then type a name for the project of your choice into the text box (for example “MyFirstProject”).

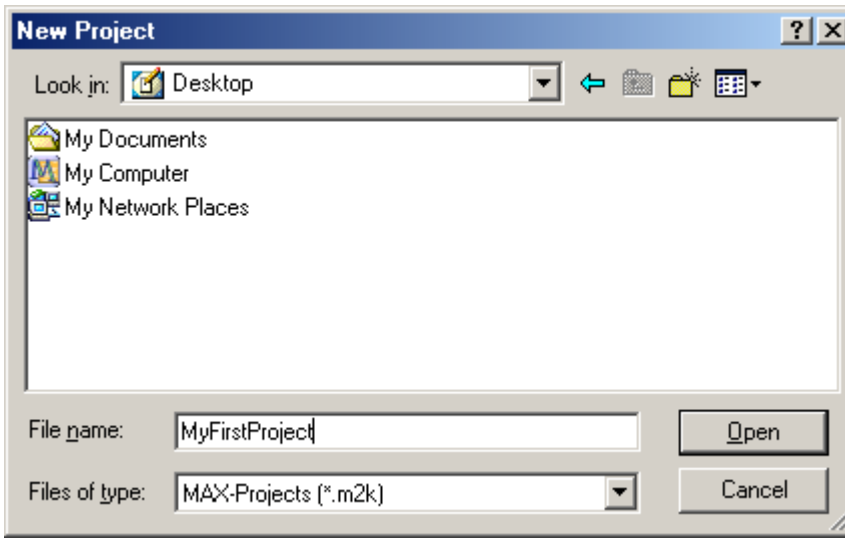

Fig. 2: Creating a New Project

MAXQDA now creates the new project. When starting the Windows Explorer you will see that a new file “MyFirstProject.m2k” appears in the file list of the folder you have selected in the NEW PROJECT dialog box. This file (with the extension m2k) is a container for all text files, codes, memos and variables of your project.

You should back up this m2k-file regularly not only on your hard drive but also to external devices like CD-ROM or Zip-drives.

Anytime you want to create a project simply select the NEW PROJECT option from the PROJECT menu. You may define as many projects as you like; there is no limit to the number of projects you can create.

To finish your work click PROJECT in the menu bar. This opens the PROJECT menu offering you a list of commands. Clicking EXIT returns you to the Windows desktop. You can also click the CLOSE (x) button in the upper-right corner of the MAXQDA window.

2. The Desktop

This chapter introduces you to MAXQDA basics. You need to know some fundamental things about MAXQDA before you start working and analyzing your study.

Let us have a look at the MAXQDA desktop. The menu bar is located directly below the title bar. This menu bar contains pull-down menus for commands. The tool bar appearing below the menu bar contains buttons for quick access to frequently used commands. On the right side of the tool bar appears the code bar offering functions for coding text segments. The tool bar "Screen Tips" feature displays the names for each button on the tool bar.

Fig. 3: Menu Bar and Tool Bar

The four main windows of MAXQDA are located beneath the tool bar:

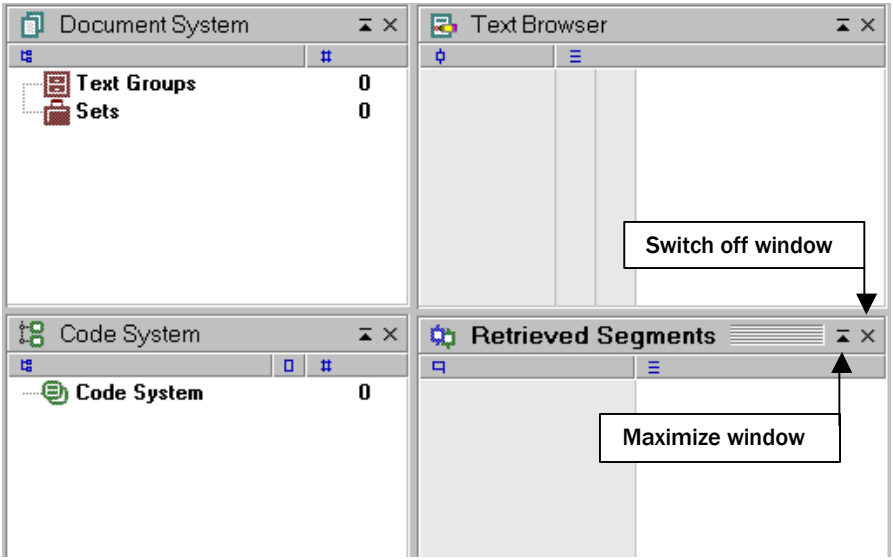

Fig. 4: The Four Main Windows of MAXQDA

- DOCUMENT SYSTEM contains a list of all your texts and text groups.
- CODE SYSTEM contains your codes, i.e. your category system.
- TEXT BROWSER is your working window where you can mark text segments and attach codes, edit text or write memos.
- RETRIEVED SEGMENTS contains a collection of coded segments, the results of a text retrieval procedure.

The four windows may be switched on and off independently. Thus you can find the appropriate arrangement for the different tasks you have to do.

The four windows may be opened or closed in three different ways:

1. Select the WINDOWS option in the menu bar.
2. Click the buttons in the tool bar.
3. Click the CLOSE (x) button in the upper-right corner of a window.

Windows can also be maximized to full screen by clicking the Maximize button in the upper-right corner of the window.

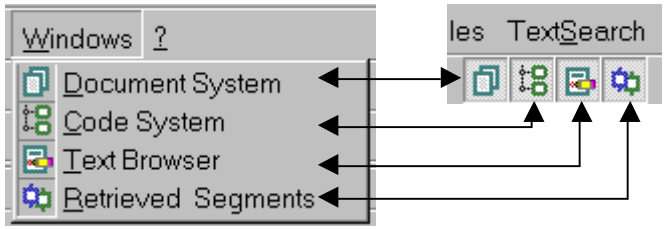

Fig. 5: Opening and Closing the Four Windows

3. The Document System

The DOCUMENT SYSTEM is like a big container that holds together all the text documents of your project. The DOCUMENT SYSTEM in MAXQDA is highly flexible; you may add new documents and remove documents whenever you want. The DOCUMENT SYSTEM consists of different text groups. At least one text group has to be created before you can import a text file.

How to create a text group:

1. Open the DOCUMENT SYSTEM window.
2. Point to the TEXT GROUPS line and click the right mouse button.
3. Select NEW TEXT GROUP from the short cut menu.
4. Type in a name for the new text group, for instance “interviews.”

In our example we have created a second text group named “field notes” and a third one named “documents.”

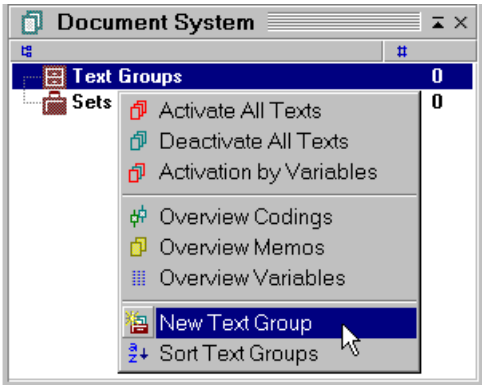

Fig. 6: Creating a New Text Group

In the DOCUMENT SYSTEM all text groups are symbolized by a special icon (open index card box). Later on, in the course of your research and data analysis, whenever you want to work with a text group click the text group’s name with the right mouse button and select an option from the short cut menu. The short cut menu offers for instance options for importing and removing text documents.

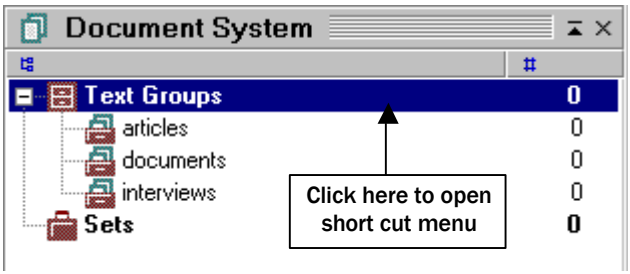

Fig. 7: Working with Text Groups

Importing your First Text

In this section you will learn how to import text documents. During the program installation some sample texts have been copied to the MAXQDA folder. We will now import the first of these texts named "interview1.rtf."

1. Click the text group "interviews" (right mouse button).
2. The short cut menu appears, choose IMPORT TEXT(S).
3. Select the file "interview1.rtf" located in the MAXQDA-folder.

MAXQDA imports the text and inserts the text name preceded by a green icon just below the text groups name.

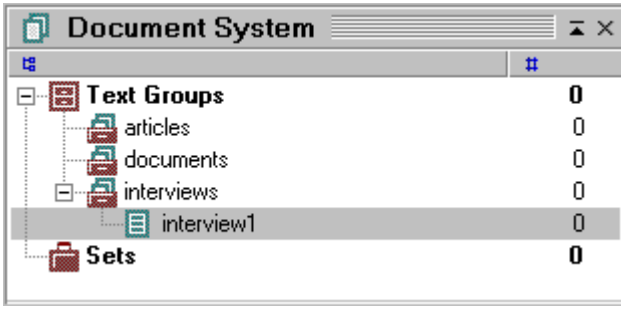

Fig. 8: Working with the DOCUMENT SYSTEM

MAXQDA imports only text files formatted in Rich Text Format (RTF). All word processing programs offer the option to save files in RTF. If you want to import already existing Word doc-files you have to convert them into Rich Text Format.

To do this with Word just open the text, select the SAVE AS Option from the FILE menu and choose file type "Rich Text Format (*.rtf)."

Fig. 9: Saving a Text File in Rich Text Format

You can import any text into MAXQDA, from wherever the file is located: from your local drive, a floppy disk or a remote computer of your network.

Opening a Text

In order to work or edit a text you have to load the text into the TEXT BROWSER window. To open a text you can either:

- Double-click the text in the DOCUMENT SYSTEM

  or

- Move the mouse-pointer to the text name in the DOCUMENT SYSTEM and click the right mouse button. The short cut menu appears. Choose OPEN TEXT.

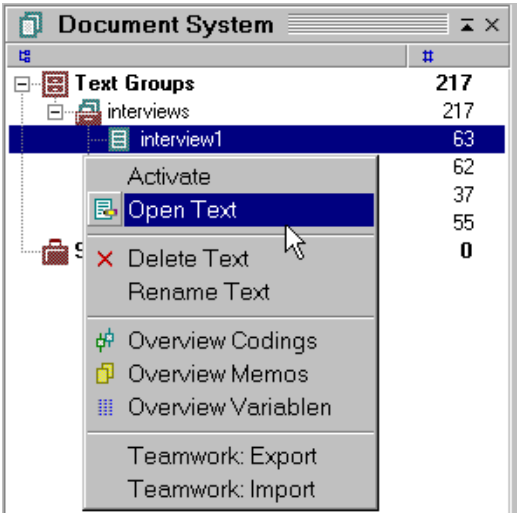

Fig. 10: Opening a Text

In the DOCUMENT SYSTEM the opened text comes with a special icon (sheet with pencil). The texts currently active for text retrieval are displayed in a different color (red).

Fig. 11: Display of opened text

The figure above shows that the text “interview1” is currently opened. Two of the three texts are active for text retrieval.

As soon as you have opened a text this way, the text shows up in the TEXT BROWSER.

Now you can start to work with your selected text. Two operating modes are available for TEXT BROWSER:

- CODE MODE
  allows you to attach codes to selected text passages and to write memos and attach them to text lines.
- EDIT MODE
  allows you to edit the text, add or delete text, correct mistakes and mark text passages, for instance with different colors.

The CODE MODE is active by default when a text is opened in the DOCUMENT SYSTEM. Click the EDIT/CODE MODE button to switch off the CODE MODE. When working in EDIT MODE a lot of features already known from word processing programs are available. You may choose the font type, font size and font color as well as formatting characteristics like bold, italics or underline.

Fig.12 : Choosing the Edit Mode

When moving back to CODE MODE the modified text will be saved automatically. The same happens when another text is opened in the DOCUMENT SYSTEM. The formatting buttons and the list of fonts available on your PC are only visible when you are in EDIT MODE. Thus, you always know which mode is activated.

Correcting mistakes or adding and removing text passages should only be done using the EDIT MODE. Switch back to CODE MODE when you have completed these tasks. Attention: There is no Undo-function for text editing! Therefore you should avoid coding text passages or writing memos in EDIT MODE.

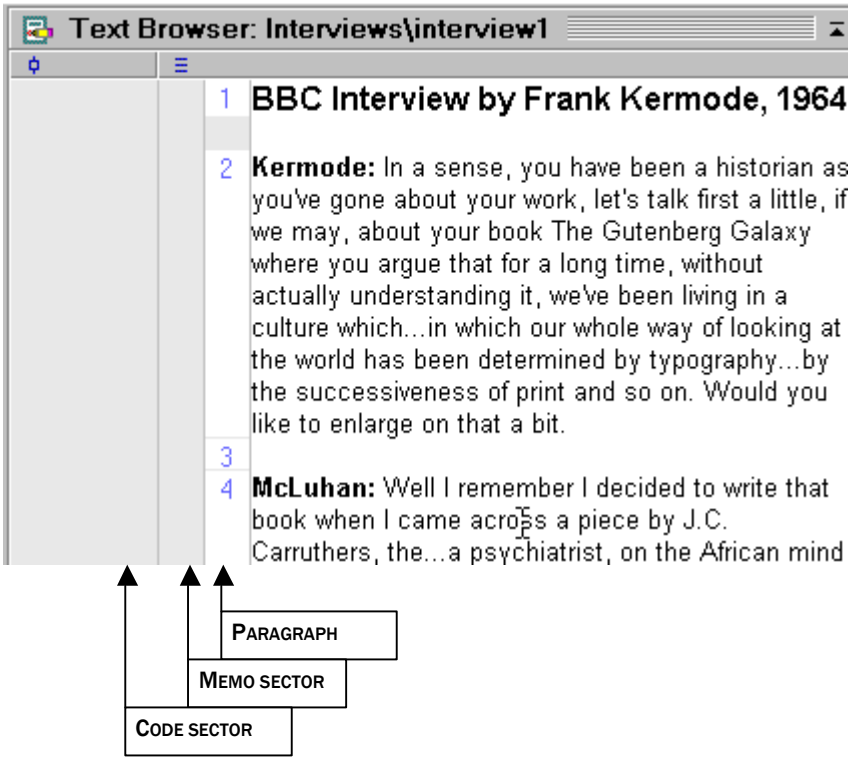

Fig. 13: Text Browser Window

To the left side of the text there is a column with the paragraph numbering. RTF-Texts are divided into a determined number of paragraphs. A paragraph in MAXQDA corresponds to a paragraph in a Word document which is ended by typing "Enter." A paragraph is thus the text between two paragraph markers, which you can see in WORD by choosing the command "Show Paragraph Markers" from Options in the Extras menu.

The Text-Memos that you create appear in the light gray area directly to the left of the text. Markings for the coded segments will appear further to the left. The entire gray area can also be placed to the right of the text.

4. The Code System

One of the main functions of MAXQDA is the coding of selected text segments, which can be ordered into a hierarchical structure. A code is a string containing up to 64 characters, which is attached to selected segments of text.

The CODE SYSTEM is always available in the window CODE SYSTEM. At the beginning of a project this window is empty except for the CODE SYSTEM button and a green symbol, both of which you can click on. MAXQDA's CODE SYSTEM has the following characteristics:

- Coded segments can be hierarchically structured.
- The number of codes is unlimited.
- The hierarchical structure may contain up to ten levels.

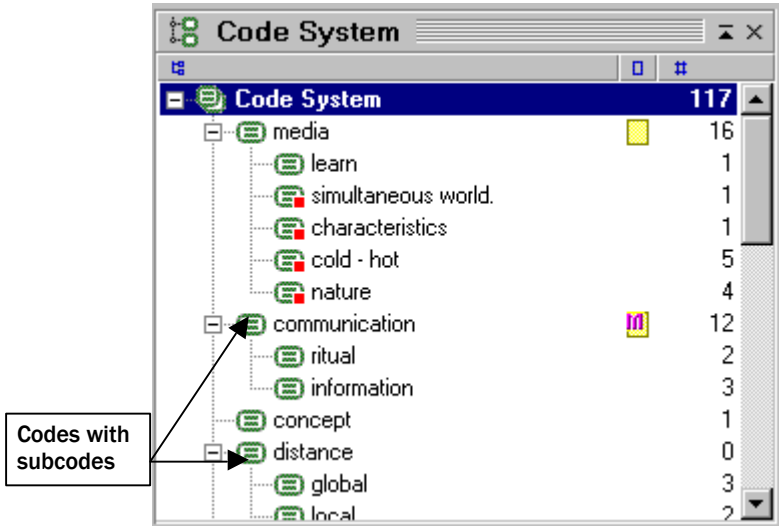

Fig. 14: Example of a Code Hierarchy in the Code System Window

The Screen View of the Code System

The CODE SYSTEM is shown as a tree structure on the screen. It looks like the File Folder which is familiar to you through Windows Explorer. A plus or minus sign before the code name indicates that a code contains sub-

codes. You can expand the subcategories or close them by clicking this button.

Defining a code is like opening a drawer in which you can put in any number of text segments. The drawer's label, i.e. the code name, can later be changed without affecting the contents of the drawer. You can also print the code system or export it.

There are two different menus for working with in the window, one for the highest level of the CODE SYSTEM, and a second for the lower level codes and subcodes. First we will create a code on the highest level:

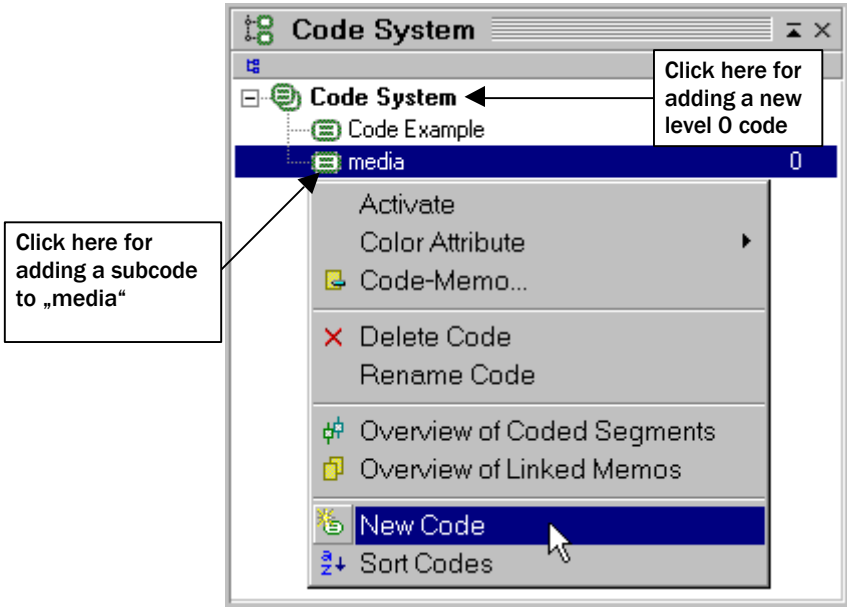

Fig. 15: Adding a New Subcode

Click the word CODE SYSTEM (on the top of the list in the CODE SYSTEM window).

1. Select NEW CODE from the menu and type in the name for your new code. (For the purpose of this example name the first code "media" and the second one "Code Example").
2. Newly defined codes are always assigned the first place on the list, in the highest level as well as in all other levels. To define a sub-

code, you have to click the next higher code with the right mouse button and select NEW CODE from the menu. Do this now by clicking on “media” and adding the new subcodes “cold - hot” and “simultaneous world.”

The order of the codes and subcodes in the CODE SYSTEM can easily be changed with the drag-and-drop mouse function. You can also sort them alphabetically by clicking the menu option SORT CODES at the highest as well as every other level.

5. About Coding

The assignment of codes to text segments in MAXQDA is called “coding.” The smallest segment of text which can be assigned a code is one character. Of course one would normally select at least one word to assign a code to.

Coding is possible in different ways, however one must always first select the passage of text with the mouse, as in the following diagram:

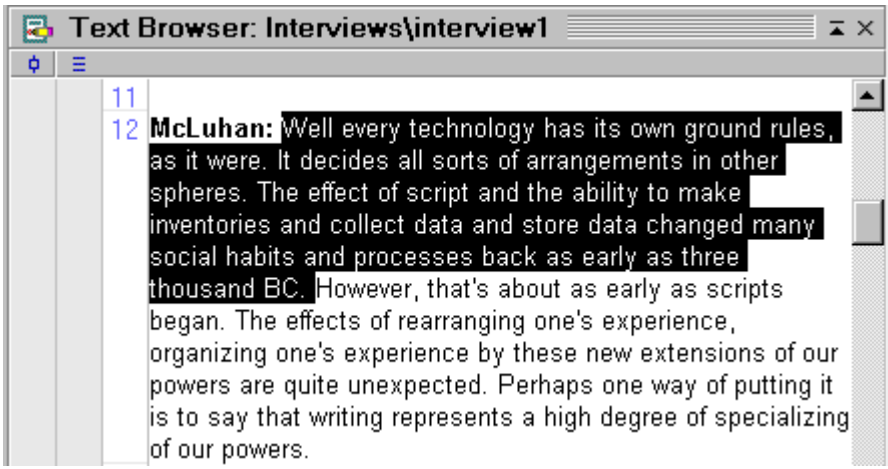

Fig. 16: Selected Text Segment

A code can then be assigned to the selected text in the following three ways:

1. Coding with the Drag-and-Drop Function

Click on the selected text with the left mouse button and keeping the button pressed, move the mouse pointer to the name of the code in the CODE SYSTEM. Releasing the mouse button then assigns the segment to this code, which you can see in the gray column next to the text in the TEXT BROWSER window.

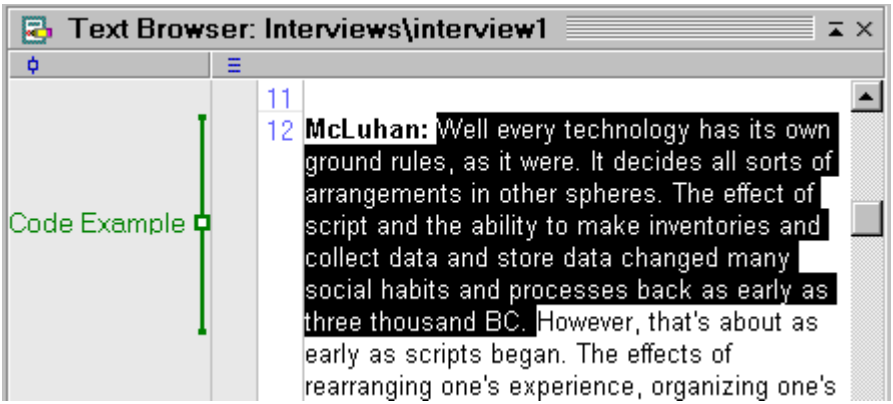

Fig. 17: Coded Text with Coding Symbol

Example: Select the shown part of paragraph 12 from the text “Interview1” (as shown above), drag it to the code “Code Example” in the CODE SYSTEM and release the mouse button.

2. Coding with a Code’s Drop-Down Menu

Click with the right mouse button on the code in the CODE SYSTEM window to which you want to assign the text. Select CODE from the drop-down menu.

Example: After selecting paragraph 16 from the text “Interview1”, click with the right mouse button on the subcode “Code Example”. Select CODE to assign the text.

3. Coding with the Code and the In-Vivo-Code Buttons

At the top of the TEXT BROWSER in the Coding tool bar is a list of the codes last used. Whenever you assign a new code to a text, the code is added to the list. By clicking on the button to the right of this list (screen tip:

"Code"), you assign the selected text to the code presently in the tool bar. This allows you to assign a text segment to a code which has already been named. You can in this way search the text for a certain topic and quickly assign corresponding passages in the text without each time going through the process of selecting a code.

Another way of coding is with the so-called IN-VIVO-CODING. If you for example select the word "global village" and then click on the IN-VIVO-CODING button in the tool bar, the word "global village" is added to the list of codes as the code for this one-word text segment.

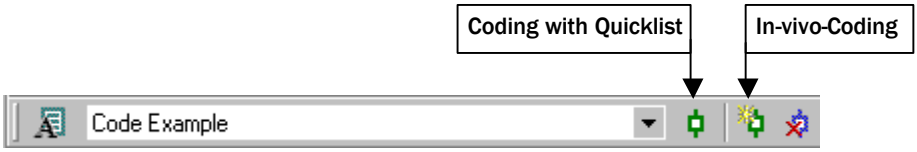

Fig. 18: Coding with the Quicklist and the In-Vivo-Coding

When you want to code a segment of text with the IN-VIVO-CODING function, and not only the word itself, code the selected word with this function first. Next select the entire text segment (including the word) and click the CODING button (not the IN-VIVO-CODING button!). MAXQDA expands the coded text segment automatically.

The Coding Symbol

The Coding Symbol appears immediately in the gray area to the left (or right) of the text in the TEXT BROWSER. The standard color for this symbol is green, but another color may be chosen for any code, causing all the coding symbols for this code to appear in this color.

Undoing the Coding of a Segment

Clicking on the small square in the middle of a coding symbol with the right mouse button causes a drop-down menu to appear, with which the coding of the text segment can be removed.

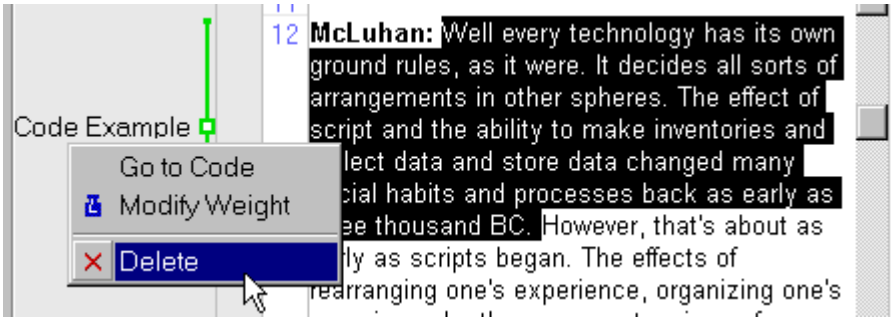

Fig. 19: Drop-Down Menu of the Coding Symbol

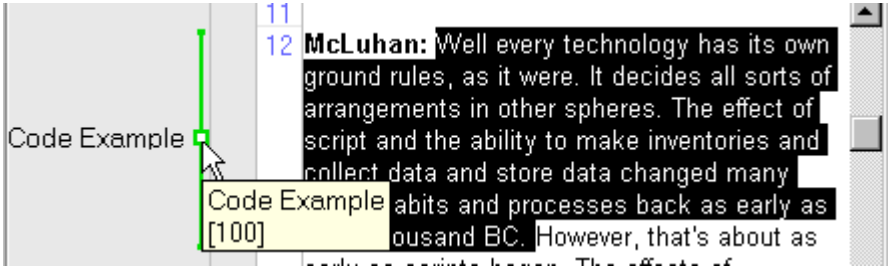

Fig. 20: The Screen Tip for the Coding Symbol

Any number of codes can be used for the analysis of a text; the number of text segments you code is also unlimited. You can also code overlapping segments of text or code one segment within another code.

Selected segments of text can be copied from one window to another. This is easily accomplished, as in Windows, with the keyboard combination CTRL+C or by choosing the COPY option from the EDIT menu.

Coding

The coding of segments of text is similar to the manually executed “cut-and-paste” procedure, in which one copied passages of text to a folder, that would then be assigned a certain name. The smallest resulting unit in this procedure was the folder, which contained the topic name, the cut-out passages of text and information about their origin. The electronic version of this folder is similarly constructed, however the smallest unit is naturally not a physical folder but a set of information copied onto a hard drive.

The set of information resulting from the creation of a code includes the following data:

1. the name of the text and of the text group to which the code was assigned.
2. the beginning and end point of the segment in the text.
3. the name of the code or subcode to which this code was assigned.
4. the code's weighting variable, which is determined by the relevance of the text segment.

Summary: The two steps for coding a text segment are:

1. Select or highlight the text segment.
2. Assign a code to the text segment, done most easily with the drag-and-drop function.

6. Memos: Managing your Ideas

In this chapter you learn how to create, modify, select and filter memos. The MEMO SYSTEM is a tool provided by MAXQDA allowing you to jot down quick notes, to form hypotheses and theories and to keep track of your ideas. Memos are different from text documents. They are not data, but rather products of the researcher and will often be modified and integrated during the process of data analysis. In some methodological approaches memos play an outstanding role, like in Anselm Strauss' Grounded Theory, where they have an important function in theory development. Strauss differentiates between different types of memos like theoretical notes and code notes. To support this differentiation between the different kinds of memos, MAXQDA offers more than 10 different memo types with different icons.

MAXQDA offers two different types of memos: text memos and code memos. Text memos can be attached to text lines like post-it notes. If you want to write a memo about the whole text, it is recommended to attach your memo to the first paragraph of the text. If you wish to create "free memos" that are not attached either to a particular text nor to a particular code, you can create a dummy text ("free memos") in the DOCUMENT SYSTEM and attach memos there.

The number of memos is not limited in MAXQDA and a memo may have a considerable length- up to 30 pages are allowed. To create a text memo do the following:

1. Move the mouse pointer into the memo sector immediately to the left of the text and double-click where you want to post your memo.
2. The memo dialog box appears.

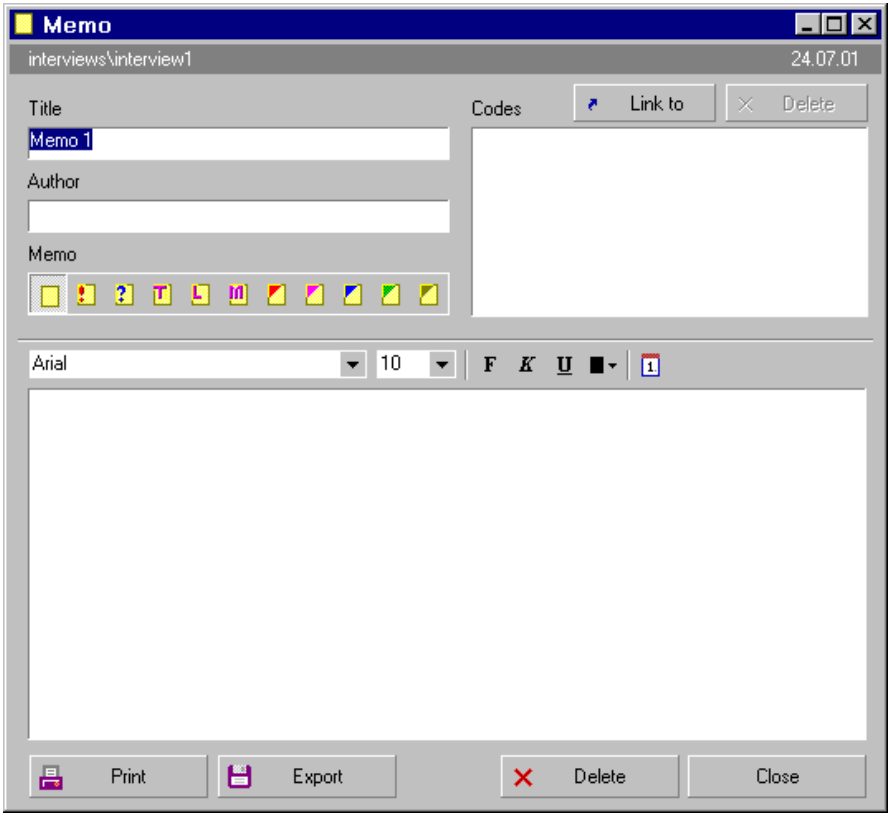

Fig. 21: The Memo Dialog Box

3. Give the memo a title and indicate the author, if desired. The date is set automatically by MAXQDA. Type your text into the text window in the lower part of the dialog box.

4. Click on the CLOSE button when your text entry is finished. MAXQDA will then return to the TEXT BROWSER. At the place where you double-clicked to attach a memo now appears a little yellow icon.

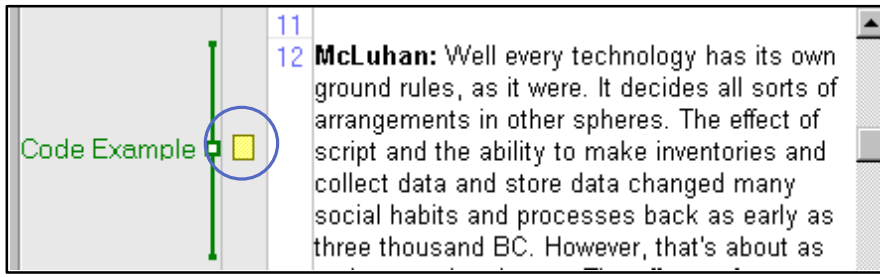

Fig. 22: The Memo Icon

Whenever you click on one of these memo icons the memo entry form will again open and you will be able to modify the memo or insert new text passages. The MAXQDA MEMO MANAGER, which can be started by clicking on the menu option MEMOS, makes it possible to work with all your memos at the same time. It allows you for instance to filter memos according to different criteria.

Like the text documents the memos are in Rich Text Format, which means you can use different fonts, font sizes and text colors. The Windows clipboard may be used to insert and copy text (by selecting text and using the EDIT menu or by pressing CTRL+C to copy text into the clipboard, and pressing CTRL+V to insert the clipboard text into the memo.

You can also use the drag-and-drop function to copy text to or from the text memo.

7. Retrieving Coded Segments

The process of retrieving previously coded segments and collecting them into a list of retrieval results is usually referred as text retrieval. MAXQDA's retrieval commands are quite simple:

For each activated text, the text segments of the activated codes will be collected in the RETRIEVED SEGMENTS window. All that you need to know to start a retrieval procedure is how text and codes can be activated for retrieval.

Activating Text Documents

As you already know, all your texts and text groups are displayed in the DOCUMENT SYSTEM. To activate a particular text you may choose between two alternatives:

1. Click on the text name using the right mouse button. Then select ACTIVATE from the short cut menu or,
2. Press the CTRL key and click on the text name(s) using the left mouse button. Maybe you are already familiar with this way of selecting text files from Windows Explorer and Microsoft Office programs.

Now the text is activated and the text name appears in red. It would be inconvenient to activate each single text separately if you wanted to work with all the texts in one TEXT GROUP. MAXQDA also enables the activating of all text documents of a text group and even of all texts listed in the DOCUMENT SYSTEM with one single command.

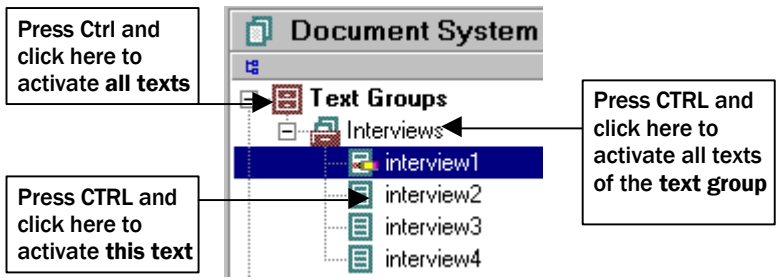

Fig. 23: Activating Text Documents on Different Levels of the Document System

You can always see which texts are currently active for retrieval: text documents are displayed with a red icon when they are active. Otherwise they remain blue-gray.

Activating Codes

The activation of codes follows the same principle as the activation of text documents. In order to activate a particular code, proceed as follows:

1. To activate one code, click on the code using the right mouse button and select ACTIVATE from the short cut menu.
2. To activate several codes at once, hold down the CTRL key and select the codes with the left mouse button.

Similarly to the activation of texts in the DOCUMENT SYSTEM, the changed color of the codes shows when they are activated: green signifies an unactivated, red an activated code.

At the bottom of the MAXQDA window a status line is displayed that contains information about the number of texts and codes that are currently active. The number of coded segments retrieved is listed here as well as three other icons. The left icon (symbolized by the child figure) tells you if sub codes will be neglected or not, the icon in the middle (symbolized by the paper-weight) tells you if the weight option is switched on or off, and the icon on the right (symbolized by the sheet of paper) gives you information concerning the chosen retrieval strategy.

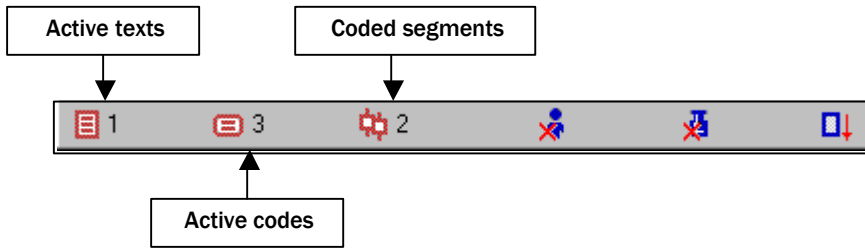

Fig. 24: MAXQDA's Status Line

All of the coded segments retrieved through the selection or activation of certain texts and codes are then shown in the RETRIEVED SEGMENTS window.

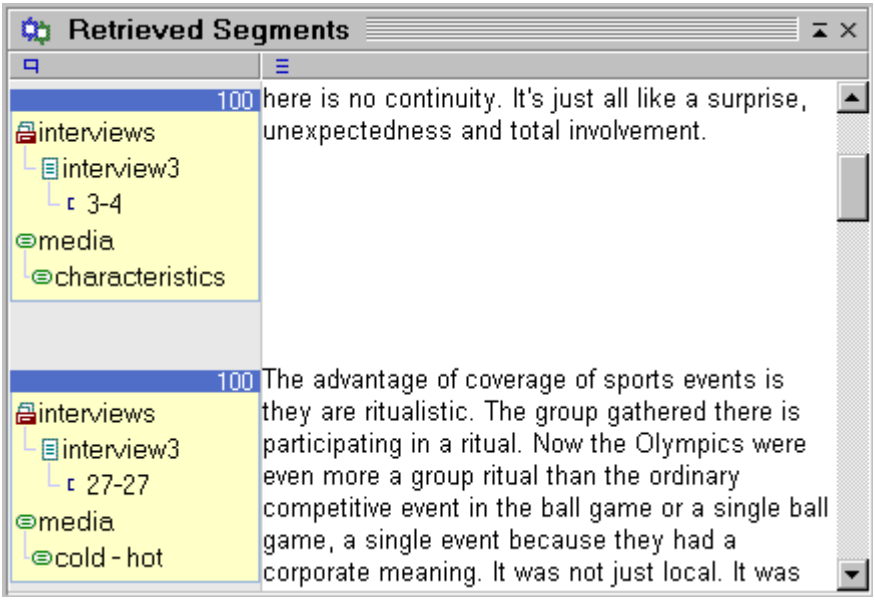

Fig. 25: List of Coded Segments in the RETRIEVED SEGMENTS Window

To the left of each text segment you can see from which text the segment was taken from and from which paragraph, and which code was assigned to it.

When you click anywhere on this box the original text from which this segment was taken, at the position of the segment in the text, will be opened in the TEXT BROWSER window.

Fig. 26: Text Information Box

The following information is given in the above example: the segment was taken from paragraph 75 of the text “interview3“ from the text group „interviews.“ It was assigned the code “media / cold-hot.”

You can search for text segments which have been assigned more than one code. For example, you could search in a group of interviews for the places where the respondends spoke about their “Personal Motivation” and their “Qualifications.”

8. Analytic Functions: Complex Types of Retrievals

This chapter is about the more complex retrieval options offered by MAXQDA. These options are available from the ANALYSIS menu of the main menu bar as well as from the short cut menu obtained by pressing the right mouse button in the gray area on the left side of the RETRIEVED SEGMENTS window.

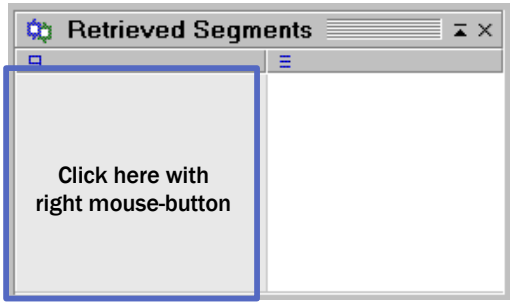

Fig. 27: Short cut Menu for Retrieval Functions

The first option of the ANALYSIS menu is the logical combination function. The function currently selected is shown; the drop-down menu available from this option offers you 10 other logical functions.

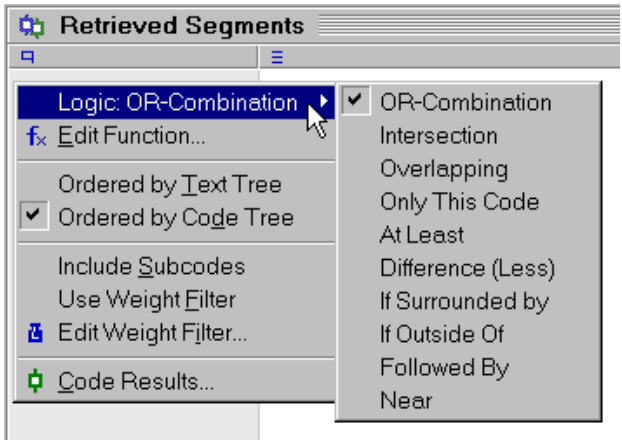

Fig. 28: Drop-Down Menu of Logical Functions

The currently selected function is also shown at the bottom of the MAXQDA window in the status line.

Attention! If you don't see any text segments in the RETRIEVED SEGMENTS window, it could be because an undesired logical function is active.

A summary of the 10 logical functions enabling complex retrievals is given in the following table:

Function	Description	How to select codes and parameters
OR combination	Lists segments coded with any of the active codes.	Activate in the CODE SYSTEM
Intersection	Finds text referenced by all of the active codes (small picture).	Activate in the CODE SYSTEM
Overlapping	Finds text referenced by all of the active codes (big picture).	Activate in the CODE SYSTEM
Only this code	Works like an "exclusive or": Only lists text passages where one of the codes is present but none of the others.	Activate in the CODE SYSTEM
At least	Only lists those text passages where a minimum of x codes of the active codes are present.	Activate in the CODE SYSTEM
Difference (less)	Similar to "Only this code," but only for one selected code. Only lists text segments where the selected code is present but none of the active codes.	Activate in the CODE SYSTEM and special selection
If surrounded by	If a text segment coded with an active code is nested completely inside a segment coded with a selected code, the segment will be listed.	Activate in the CODE SYSTEM and special selection
If outside of	If text segments coded with active codes are completely outside of segments coded with the selected code, the segments will be listed.	Activate in the CODE SYSTEM and special selection

Followed by	If the active code(s) are followed by the selected code within a distance of x paragraphs, the segment will be listed.	Activate in the CODE SYSTEM and special selection
Near	If the active code(s) and the selected code are within a distance of x paragraphs, then the segment will be listed.	Activate in the CODE SYSTEM and special selection

When you select a logical function, it will only work with the activated codes. Before selecting the logical function it is thus necessary to first activate the codes that are to be searched.

In the case of the rather simple features

- OR combination
- Intersection
- Overlapping

no additional parameters are needed. The retrieval procedures will start immediately.

When working with the more complex functions of the ANALYTIC FUNCTIONS an additional dialog box EDIT FUNCTION appears. Here special selections concerning the selection of codes and the kinds of results can be made. The codes which can be selected in this EDIT FUNCTION should be present in the "quick-list" (the list of most recently used codes). These are in temporarily stored in the main MAXQDA tool bar, which you can view by selecting the drop-down arrow at the right of the text box). If the codes you want to work with are not in the quick-list, you must first transfer them there. You can do this by simply pointing to the code in the CODE SYSTEM and clicking the left mouse button.

Be aware that all complex retrieval functions refer to the active codes. Thus, to find intersections of code "A" and code "B" both codes must be activated and the retrieval function INTERSECTION must be chosen.

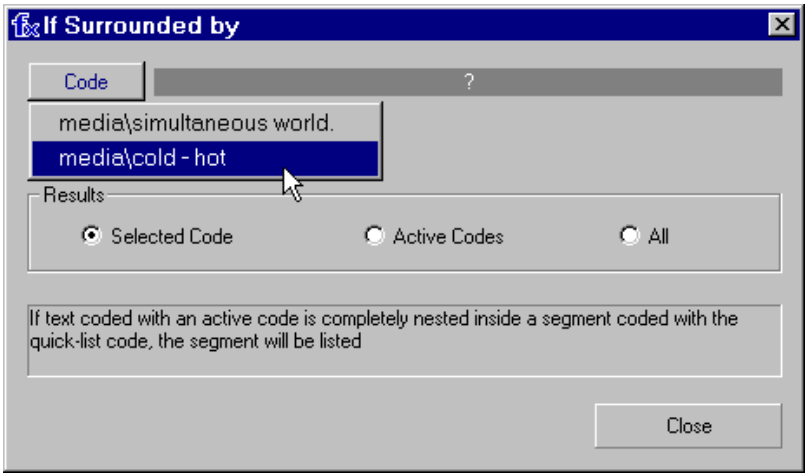

Fig. 29: Working with the Function "If Surrounded by"

9. Managing Variables

MAXQDA allows you to link a set of attributes (variables) to each document. These attributes are managed as a table, a rectangular data matrix, in the same way as in statistical programs like SPSS. You could save for instance the socio-demographic data of your interviewees or data concerning the interview. You could also evaluate interviews concerning a particular topic and store the results as variables.

All variables have to be created before you can enter variable values. To do this open the VARIABLES dialog box by clicking EDIT from the menu option VARIABLES.

A table similar to a spreadsheet appears. How to manage tables in MAXQDA is further explained in chapter 12.

The first row contains the column headers, the names of the variables. When you open the VARIABLES dialog box for the first time the table is not empty- as you would probably expect- since MAXQDA has already created automatically four internal variables ("system fields"). These variables contain for each text the name of the text group, the name of the text, the creation date and the number of coded text passages.

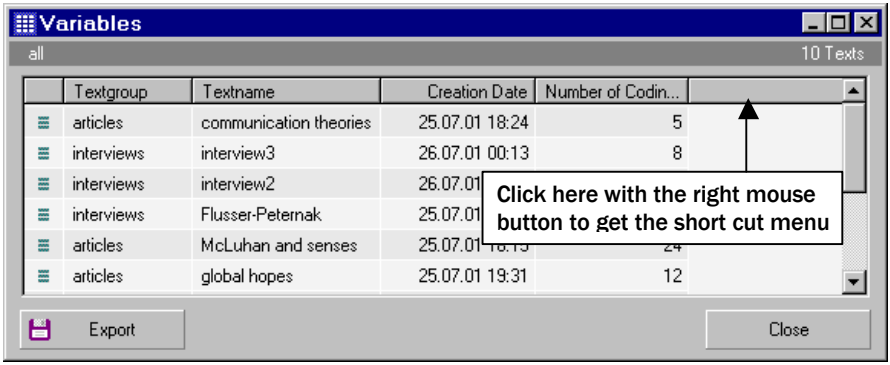

Fig. 30: Table of Variables

When right-clicking a header in the table a short cut menu appears. To create a new variable choose ADD VARIABLE. Then enter a name for the new variable in the text box and choose the appropriate variable type.

Four types of variables are available in MAXQDA:

- String (text)
- Number (integer)
- Floating point number
- Date/time.

For instance if you want to define a variable named „gender“ with the values „m“ (for male) and „f“ (for female) the variable type String would be appropriate.

In this way you can create as many variables as you like. All variables are held in the VARIABLES table, which has as many rows as texts have been imported into the DOCUMENT SYSTEM. The columns of the table are built by the variables. Thus the number of cells of the data matrix is (number of texts) * (number of variables). The matrix can easily be exported to SPSS or Excel for statistical computations.

Example: To enter a value for the variable „gender“ in the first row of the table, double-click on the cell of the Variables table and enter „m“ for a male or „w“ in the case of a female respondent.

Rather than having you first enter a list of possible values for a variable, MAXQDA automatically places all values previously entered for a particular variable in a picklist. You can open the picklist by clicking on the right corner of the cell. Thus, whenever you later double-click on a cell in the column "gender," the list will show up and you will be able to select the appropriate value without having to type it in again. This is particularly useful if variable values consist of longer strings such as names, towns, professions, etc. Whenever a new value is entered it will be inserted into the picklist in alphabetical order.

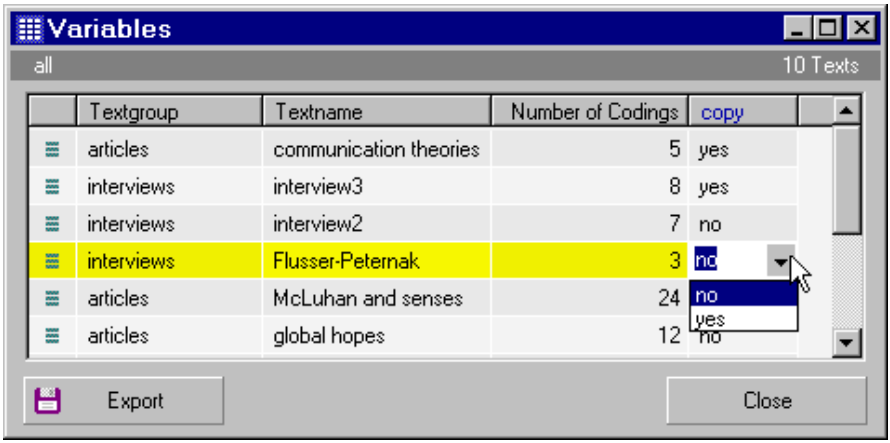

Fig. 31: A Picklist in the Variables Window

Variable values may also be used as selection criteria for lexical searches and text retrieval (see chapter 10). Take the example of a researcher who is interested in the motives of females over the age of 40 in going back to work. Supposing that you have defined the variables "gender" and "age," you could then filter the text documents according to these criteria.

The variable values of each text document can be inspected when you right-click on the text name in the DOCUMENT SYSTEM window and choose OVERVIEW OF VARIABLES from the short cut menu.

10. Using Variable Values for Selecting Documents

In chapter 8 you have learned how to activate text documents manually. MAXQDA also provides automatic activation of text documents. In this case the texts are activated through the selection of the value of one particular variable or the values of a couple of variables. Thus the attributes of a document determine if the document will be selected for retrieval or not. Imagine that 3 variables "gender," "age" and "school" have been created. You would then be able to select from your data bank only men over the age of 55 with a college degree and activate the documents linked to these persons for a lexical search or text retrieval.

In MAXQDA selection criteria like these can only be formulated in a formalized way by use of the procedure ACTIVATION BY VARIABLES. The syntax of the command language is quite similar to programs like SPSS.

Since ACTIVATION BY VARIABLES is a function that checks all text documents of a project, the function has to be called on at the highest level in the DOCUMENT SYSTEM. Here you will find the option ACTIVATION BY VARIABLES in the short cut menu.

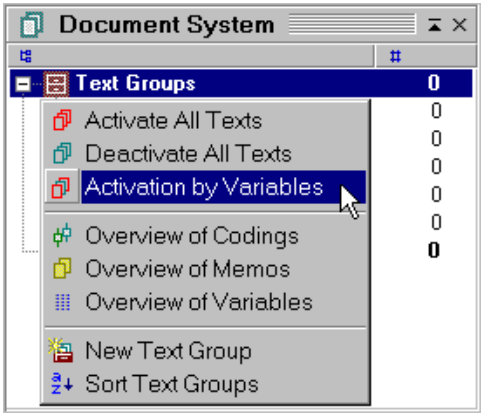

Fig. 32: Starting the Activation by Variables with the Drop-Down Menu

Another way to start the function is to click on the icon ACTIVATION BY VARIABLES in MAXQDA'S tool bar.

Fig. 33: Starting the Activation by Variables with the Tool Bar Button

If there are texts which are currently activated, you first have to deactivate them by clicking the RESET button in the tool bar next to the ACTIVATION BY VARIABLES button.

After having started the activation by variables you will see the following dialog box:

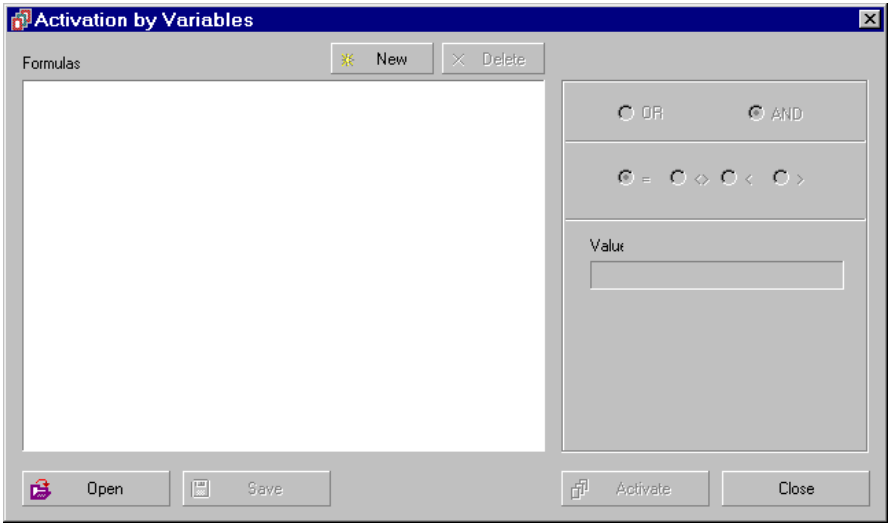

Fig. 34: The Activation by Variables Dialog Box

All logical operations must be formulated as follows:

Variable Operator Value

If you had given the strings “m” (male) and “f” (female) as possible values for the variable “gender,” then you would choose all females with the formula:

Gender = f

Example: In the evaluation of the opinion poll of the Shell Youth Study 2001, the individual reports have already been coded. The variable "Criticism" was used to input whether or not each individual report had expressed criticism of the study: "Y" if it had, and "N" if not.

In order to now examine only the people who had expressed criticism, one would enter the following formula in the formula box:

Criticism = Y

To do this:

1. Click the NEW button.
2. Select "Criticism" from the list of variables.

You will then see the following appear in the formula box

[Criticism] =

You can then enter a value in the text box on the right hand of the ACTIVATION BY VARIABLES dialog box. For this example, enter "Y."

Attention: **MAXQDA** is case sensitive.

Since the logical operator " = " is most often used, **MAXQDA** enters it automatically. You can however also choose another logical operator from the list, which will then replace the equal sign.

The logical operators mean the following:

= the formula is true when the variable has the value entered.

<> the formula is true when the variable does not have the value entered.

< the formula is true when the variable has a value smaller than the value entered.

> the formula is true when the variable has a value greater than the value entered.

In our example we wanted to select only those people who had expressed criticism, i.e. those by whom this variable has the value "Y." Thus the equal sign remains the operator.

When numerical variables are used, MAXQDA automatically enters "0" as default for the value.

Results of the Activation by Variables

Correctly entered formulas can immediately be activated by clicking the "Activate" button. You will be able to see the texts which meet the conditions of the formula, and are therefore activated, in the RETRIEVED SEGMENTS window. The activated names of the texts are colored red as usual.

In the status bar at the bottom of your screen you can see how many texts met the conditions of the formula. If codes have been activated by this selection through logical criteria, they will appear in the CODE SYSTEM window and the corresponding texts in the RETRIEVED SEGMENTS window.

Complex Logical Functions

You can also construct a formula combining several operations. The basic unit of such a formula remains the formula in its simple form:

Variable Operator Value

Any number of these simple formulas can be combined with the logical operators AND and OR.

In our previous example we selected all people in the study who had expressed criticism with the formula "Criticism = Y." If we then want to select only the women who had expressed criticism, we would have to add a second criterion. This we would formulate with the variable "Gender" and the value "f." This gives us the second formula "Gender = f," which we can then combine with the previous formula by means of the logical operator AND. This is accomplished in exactly the same way as with the first simple formula:

- Click the NEW button.
- Select "Gender" from the list of variables.

The following appears in the formula box:

[Gender] =

- Type "f" in the value dialog box.

MAXQDA automatically selects the logical operator OR. To include AND in your formula instead, click on the AND button. The logical operator in the ACTIVATION BY VARIABLES window will then be switched.

In this manner you can add as many logical combinations and conditions to your search as you wish. Once the formula is complete, click on ACTIVATE as usual.

The logical operator AND and OR have the following effect on the activation process. A combination of the simple formulas through OR causes the entire formula to be evaluated as true for any code or segment for which at least one of the simple formulas is true. Had you then in the above example chosen the logical operator OR, giving the formula "Criticism = Y or Gender = f," the formula would not only be true for the people who had expressed criticism, but also for all women. Thus the desired results of our search would not be obtained by using OR. We would need to use the operator AND to search for the women who had expressed criticism. The correctly entered formula would appear in the ACTIVATION BY VARIABLES window as follows:

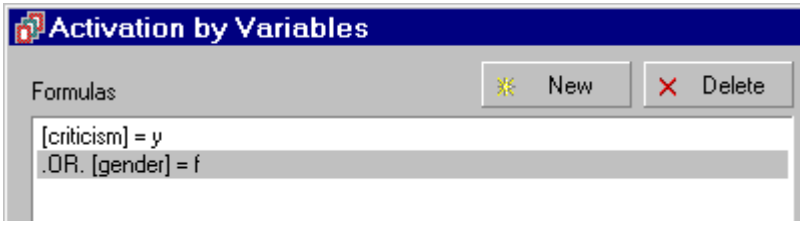

Fig. 35: A Complex Formula

Removing Simple Formulas

Any of the simple formulas you included in your complex formula can be deleted:

- Click on the line you want to delete.
- Click on the DELETE button.

11. Buildings Text-Sets

For certain analytical tasks it is useful to be able to bring texts from different text groups together. This is possible in MAXQDA and such a collection of primary texts is called a text-set. A text-set does not contain the texts themselves, but rather tags or references to the texts.

A text-set is formed in the following manner:

1. Activate the texts you want to include in the text-set.
2. Click with the right mouse button on SETS in the DOCUMENT SYSTEM window.
3. Select NEW SET.

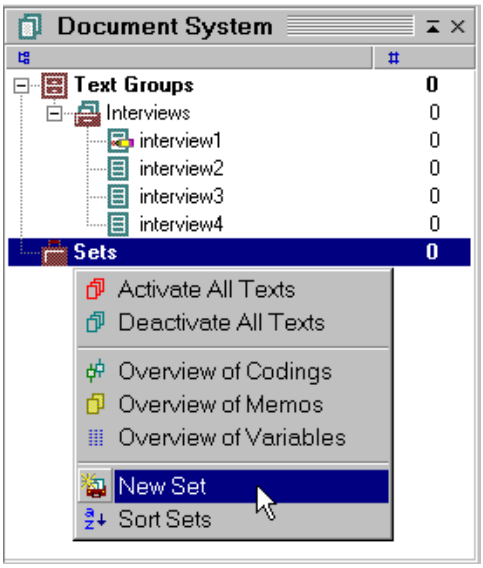

Fig. 36: Forming a New Text-Set

MAXQDA then forms a new set with the name “Set 1.” You can click on the name with the right mouse button and choose on which is more appropriate. Text-sets are manipulated like text groups; you can activate all the texts in a text-set at the same time and use all the options for working with text groups (Codes, Memos, Variables).

Individual texts can be deleted from a text-set or placed in another text set- the easiest way is using the drag-and drop function.

When you want to analyze a certain selection of primary texts, using a text-set is very practical method, avoiding a more complicated selection procedure. Forming a text-set is also an easy way to save the result of a complex activation process.

12. Managing Tables

Many procedures in MAXQDA work with tables like in a spreadsheet program, such as Microsoft Excel.

The following figure shows the table of VARIABLES that appears if you select the option EDIT from the VARIABLES menu.

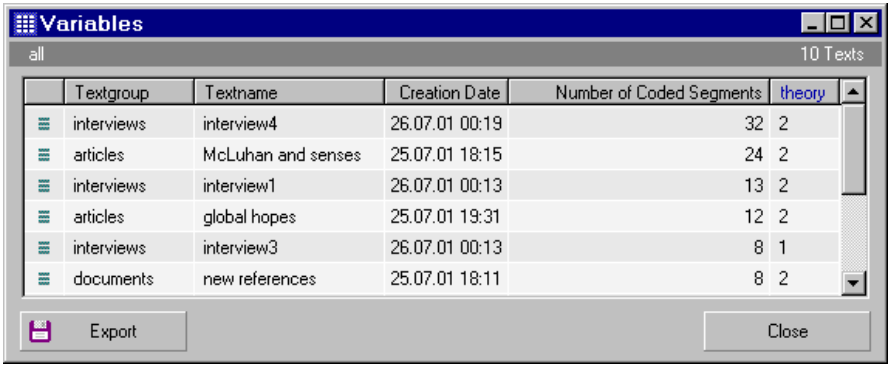

Fig. 37: Working with Variables in a Table

In the heading line of the table the variable names are displayed. Some variables appear in black color, some in blue. The black ones are “internal variables” of MAXQDA so called „system fields“. These are:

- Textgroup - contains the name of the text group.
- Textname - contains the text name.
- Creation Date - the creation/import date of the text.
- Number of Coded Segments - the coded segments of the text.

For later use in statistical programs like SPSS the variables “Textname” and “Textgroup” are written as one word. The width of each column in the table can be modified by simply dragging the little line between the columns headings. When you double-click on a line separating two headings (the mouse pointer will change into a special symbol for this function), MAXQDA will give the column the optimum width allowed for by the longest string found in that particular column.

The sequence of the columns in the window can be chosen by the user. Simply click on the column header of the column you want to move, hold down the left mouse button and drag the column to the new location.

When you click on any heading with the right instead of the left mouse button a pull-down menu appears. There you find an option to switch off the column. The short cut menu also offers an option to list all the columns of the table in order to open and close them separately.

Tables can be sorted easily by clicking on a column heading. Select whatever variable which you want to determine the sort sequence and click the variable name with the left mouse button. The table will be sorted in ascending order. Clicking again changes the sort sequence to descending order. A little triangle indicates the sort variable and the selected sequence order.

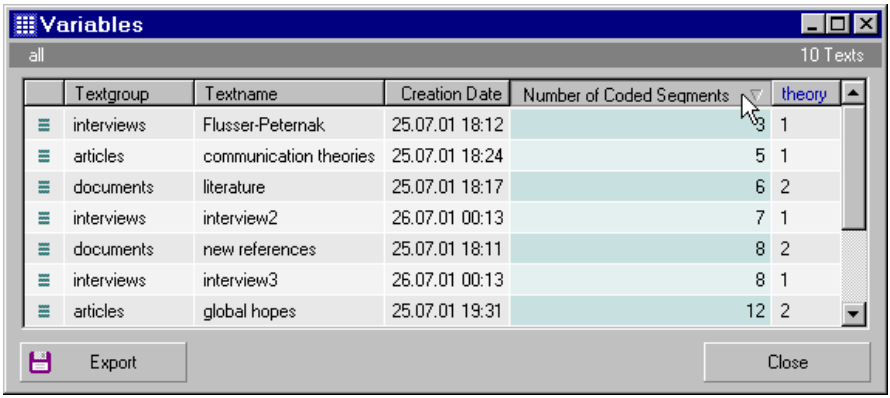

Fig. 38: Sorting a Table According the Number of Coded Segments

Tables in MAXQDA have editable and non-editable columns. The internal variables, the “system fields,” cannot be edited. Thus if you wanted to rename a text document, assign it to another text group or remove it from

the list, you would not be able to do that in the VARIABLES table. Such modifications can only be done in the DOCUMENT SYSTEM window.

Columns with headings written in blue can be edited. Simply double-click on the cell of the table where you want to type in a new value.

The entire table or part of it can be copied to the Windows clipboard and inserted into other programs such as MS Word, Excel or Power Point. To copy into the clipboard press CTRL+C, to insert (or "paste") from the clipboard into MS Word or another document press CTRL+V.

Table rows are selected as in Excel. To select a single row simply click on it, and to select multiple rows press the CTRL key and click on the rows with the left mouse button. To select an area of the table click on the first row, then press the SHIFT key and click on the last row you want to copy.

Selected rows are highlighted in yellow. When you insert them into Excel (by use of CTRL+V or Edit > Paste) the table shows up with the original column headings. In MS Word the imported table will look different- the different cells of the table are spaced with tab stops and at the end of each row a "Return" keystroke is inserted.

In MAXQDA, a search function for tables allows you to search for values or strings in selected columns of a table. Click with the right mouse button on the column heading where you want to search, choose SEARCH from the pull-down menu and type in the value or string. MAXQDA will automatically go to the first row where the search string has been found.

13. Text Search

The TEXT SEARCH functions allow you to do lexical searches in your text documents. Lexical searches can be done without first coding the material. Thus, text searches are a way of exploring your texts without spending a great deal of time segmenting and coding text.

You can search

- in your text documents,
- in your memos,

- in the text passages currently displayed in the RETRIEVED SEGMENTS window or
- in the currently active texts.

By limiting the scope of the text search to the currently active texts, you can search in single documents or in a particular text group. You may also restrict the search to texts in function of their variable values.

To start the text search procedure click on the menu option TEXT SEARCH or click on the SEARCH button in the **MAXQDA** tool bar.

Fig. 39: The Search Button

The Search dialog box shows up:

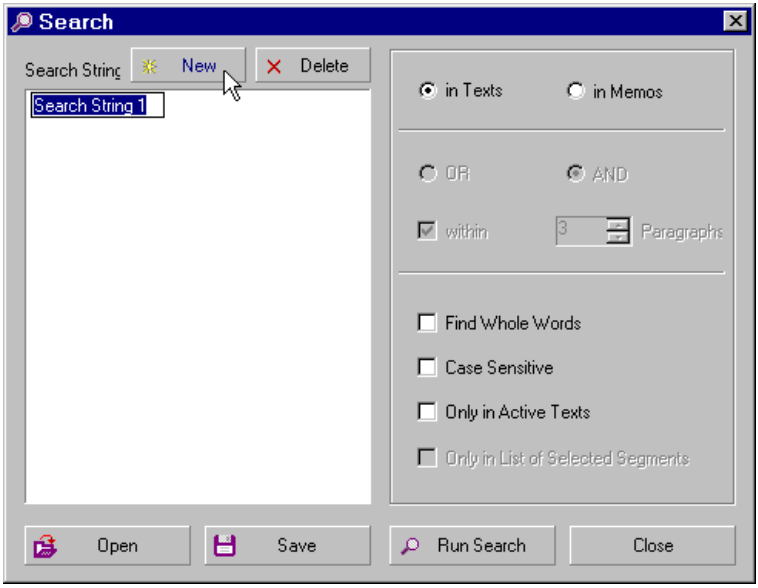

Fig. 40: Search Dialog Box

When the dialog box first comes up the left pane is empty. Click NEW to enter the word or string (called the "search string") that you want to find.

For this example type “media.” You can specify that you want MAXQDA to match the case, or that you want to find only whole words. To do the second you would click the FIND ONLY WHOLE WORDS check box.

Click the DELETE button to remove search strings from the list. You can also modify your search strings at any time.

In the right pane of the dialog box, a couple of options for the search procedure are available:

IN TEXTS or IN MEMOS	Search in your text documents and/or in your memos.
FIND WHOLE WORDS	Search only for strings which are exactly the same as the search string. For example, if you search for “teach,” the string “teacher” will not be included in the search results. If you turn this function off, “teach” would also give you the strings “teacher” or “teaching” as results
CASE SENSITIVE	Search only for strings in which the same letters as in the search string are capitalized.
ONLY IN ACTIVE TEXTS	Search only in activated texts. If no texts are activated, there will of course be no results.
ONLY IN RETRIEVED SEGMENTS	Search for the string only in the text in the RETRIEVED SEGMENTS window.
OR / AND COMBINATION	For searches with more than one search string. With OR checked: Search for texts containing only one of the search strings. With AND checked: Search for texts containing all of the search terms (the amount of text within which they must be found can be determined).
WITHIN X PARAGRAPHS	For searches for text containing more than one search string (AND is checked). The search strings must be found within “x” number of paragraphs.

Click the SEARCH button to start the search.

Searches can be saved. Click on SAVE, enter the name and click on SAVE again. This creates a Search file with the file extension ".sea" which you can later open and continue.

Search Results

The results of a search is displayed in figure 41.

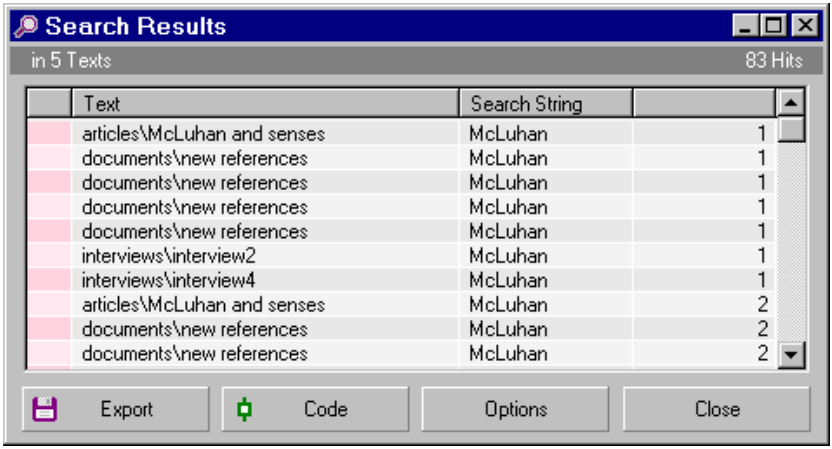

Fig. 41: Search Results

The table of search results can be handled in the same way as other tables in MAXQDA: clicking on any one column heading will sort the table according to this criterion. For instance, clicking on "Text" will have the effect that the table will be sorted in the alphabetical order of the text names.

The entire table or parts of it can be copied to the Windows clipboard (by pressing CTRL+C).

Beneath the title bar you can see how many texts contain the search string, and how many times the search string appears in the texts. Clicking on a result opens the corresponding text at the position of the highlighted search string.

Exporting Search Results

The table of search results also offers the possibility of exporting the results by clicking on the EXPORT button on the bottom left of the dialog box. The file format is as usual RTF. The result will look as follows:

Interviews\interview1 (120)
Public

Interviews\interview1 (16)
Citizen

Interviews\interview1 (40)
Citizen

Interviews\interview1 (50)
Citizen

Fig. 42: Exported Search Results

Each search result consists of the name of the text group and text, and the number of the paragraph in which the search string was found, as well as the search string itself. The length of the retrieved text can be determined beforehand.

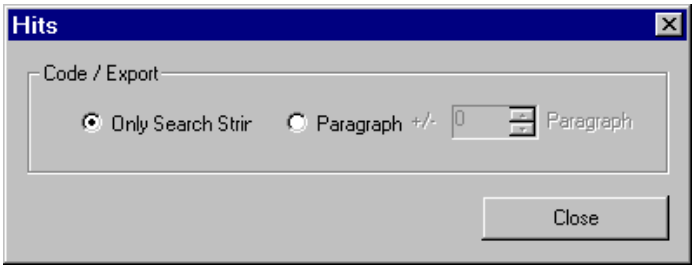

Fig. 43: Search Result Options

When exporting the search results you should select the option PARAGRAPH instead of ONLY SEARCH STRING. Otherwise only the search string would be written in the export file, which doesn't make any sense.

You can select how many paragraphs will be retrieved:

Paragraph = 0 Only the paragraph which contains the search string will be listed. If the string occurs in the paragraph more than one time, the paragraph will still be listed only once, although the string will be highlighted wherever it occurs.

Paragraph +/- "x" The paragraph which contains the string will be listed, as well as "x" numbers of paragraphs before and after this paragraph.

14. Organizing Teamwork

MAXQDA makes teamwork easy. Different people working on different computers can analyze the same body of text. Teamwork is possible with MAXQDA in two different ways depending on how the members of the research team work together.

TYPE A TEAMWORK: Different people work with the same "master version". They perform on-line searches, text retrievals and other kinds of analysis with this master version. But they do not perform the coding and memo procedures simultaneously on the master version. In terms of computer language: they are able to read from the data but not to write to it. This is because only one master version of the data set exists. More than one team member cannot code a single text at the same time. They can analyze the data but they can not create new codes or subcodes, new memos or variables. They have to wait with this type of work until they receive the new master version of the project from their colleague.

TYPE B TEAMWORK: The different members of the group divide their work: team member A will code text no. 1 through 5, team member B will code text no. 6 through 10, and team member C text no. 11 through 15. They do their work at the same time and exchange it using diskettes, a network or the internet.

Both types of teamwork are supported by MAXQDA. The first type of teamwork is the easier one, since a project file can be exchanged between the different PCs. The research group always works with the same data base, but the handicap is that coding and memo procedures in MAXQDA are not possible on more than one PC at a time.

Teamwork of type B of is more complicated, since different versions of the data exist at the same time. This implies that a couple of rules have to be defined, and these rules must be followed strictly by all members of the research team.

Type A Teamwork

MAXQDA makes teamwork of type A easy, since MAXQDA can write the whole PROJECT into one file with the file extension m2k (what we called a "master version" above). For example a project named "MarienthalStudy" would be saved as the file "MarienthalStudy.m2k".

This m2k-file contains all:

- texts
- codes
- memos
- variables
- coded segments

The file does not contain:

- saved search runs
- saved logical formulas of the ACTIVATION BY VARIABLES procedure
- exported files, for instance variable tables or memo tables

These m2k project files can be exchanged between the members of the team. The files can also be sent as e-mail attachments. In this case the files must be zipped with a data compression program like Winzip.

Supposing that all research group members work with the same text base, the process of data analysis could proceed as follows:

1. Person A, B and C start with the same text base.
2. Person A codes a text on PC1.
3. Person A writes a MAXQDA project file.
4. Person B and C import this project file to PC 2 and PC3.
5. Person B codes a text on PC2.
6. Person B writes a MAXQDA project file.
7. Person A and C import this project file to PC 1 and PC3.

Whenever such a project file is opened on another PC, the whole study will be imported; the DOCUMENT SYSTEM and the CODE SYSTEM will be constructed in exactly the same way as they were at the moment when the Project file was written.

In the example above all three persons would be able to perform text retrievals and lexical searches, but at phase 2 only person A could code a text.

This way of interchanging data in a research team is particularly recommended at the beginning of the research process. All texts can first be imported into MAXQDA on the same PC. Then the project file is given to the other members of the team. Organizing teamwork in this way guarantees that all team members have in fact the same text groups and the same texts in exactly the same format.

Exchanging Coded Segments and Memos for Single Texts (Type B Teamwork)

With MAXQDA it is also possible that team members work with the same text documents simultaneously. Of course the texts must be imported on each PC, but it is not necessary either that texts are imported in the same sequence order nor that the DOCUMENT SYSTEM contains the same set of texts on each PC. But be careful: The texts must have an identical format on each PC, the number of paragraphs and the text itself has to be the same, but not the font type, font size and color. Thus it does not matter if a text is formatted in Courier 12 instead of Times Roman 10.

It is not necessary that the CODE SYSTEM be identical, but in a research team the same codes should be used. It would be rather confusing if different people would work with different category systems.

Imagine that your team wants to analyze Interview2 and code text segments in it. If you do this on PC1, how will your colleague, working on PC2, get the result? In this case it does not make sense to exchange the entire project. The codes have to be exported on the level of a single text. In MAXQDA this is quite simple:

Move the mouse to the particular text (in this example Interview2) in the DOCUMENT SYSTEM window, click with the right mouse button and select EXPORT TEAMWORK MAXQDA will then copy all coded segments and memos assigned to this text to a file named like the text in the DOCUMENT SYSTEM.

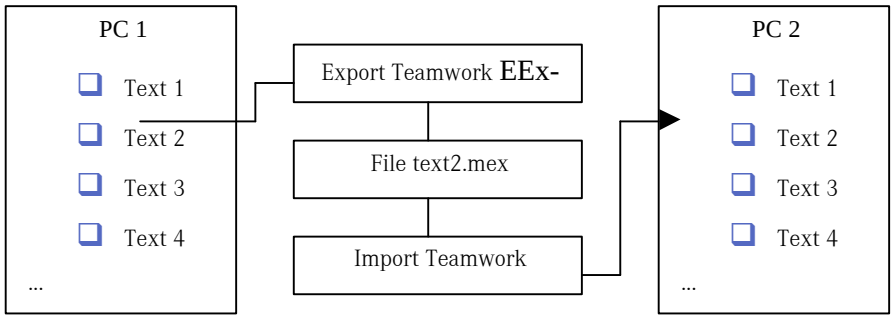

Fig. 44: Exporting and Importing Codes and Memos

MAXQDA automatically adds the file extension ".mex" (= Max EXchange).

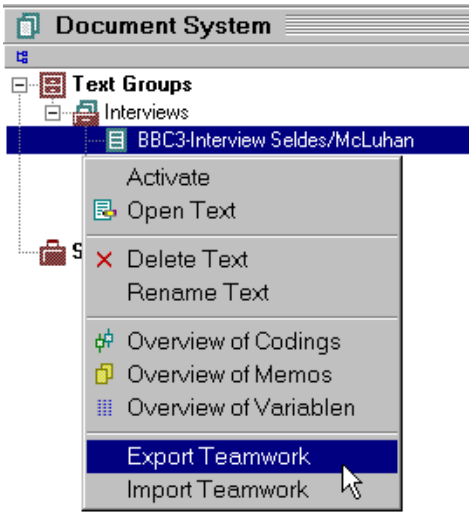

Fig. 45: Selecting Teamwork Export

The EXPORT TEAMWORK procedure always exports all codes and memos assigned to a selected text. It does not matter if the codes are active or not. Thus it is not possible to export only selected codes or subcodes.

Exchange files (".mex" files) can be sent by e-mail to other team members. It is recommended to zip the files before sending them as attachments.

IMPORT TEAMWORK

Now the export file can be imported on any PC where the same text with the same text structure is present in the DOCUMENT SYSTEM. This works in the same way as EXPORT TEAMWORK. On PC2 click on the text name in the DOCUMENT SYSTEM. Then choose IMPORT TEAMWORK and choose the appropriate file in Windows' "Open File" dialog box.

Remember: It is absolutely necessary that the text to which the codes and memos are imported contains exactly the same text and has exactly the same structure as the text which the codes were exported from.

The following occurs when codes are imported by MAXQDA:

- All codes existing before the import procedure remain the same.

- Text segments which were assigned to a code with the same name as an already existing code in the importing file are added to this code.
- Codes that are not found in the CODE SYSTEM will be created. The same happens with subcodes.
- Coded segments already existing will be ignored to avoid the double-coding of a text passage.

To make sure that the import procedure was correctly carried out, it is recommended to open the file and check the codes. You also may obtain a listing of all codes and memos by using the OVERVIEW OF CODES and OVERVIEW OF MEMOS procedures.

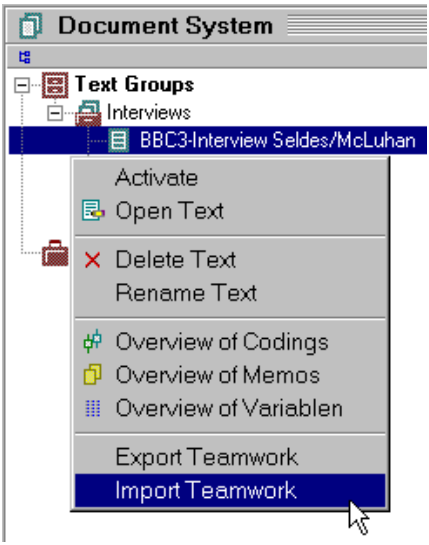

Fig. 46: Starting the Import Teamwork Function

Merging MAXQDA Projects

Another feature of MAXQDA supporting teamwork is the option to merge two projects. The procedure is called MERGE PROJECTS and causes a selected project to be added to an opened project:

1. Open the larger of the two projects you want to merge.

2. Click on the menu option PROJECT and choose MERGE PROJECTS from the pull-down menu.
3. A Windows "Open File" dialog box opens. Select the project file that you want to add.

MAXQDA then starts the merging procedure, which depending on the size of the two projects, may take some time.

Project A and Project B must have different project names. The merge function is then carried out in the following manner:

- All the text groups and their text documents of Project B will be inserted in the DOCUMENT SYSTEM of Project A.
- All memos of Project B will be inserted in the LIST OF MEMOS of Project A.
- All the codes of the two Projects will be merged. In the case that a code or subcode does not exist in the LIST OF CODES of Project A, this code will be created and inserted in its place in the list.
- All variables and variable values will be merged.

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