



Reference Manual

MAXQDA for Windows

11

Support, Distribution:

VERBI Software. Consult. Sozialforschung. GmbH Berlin/Germany

<http://www.maxqda.com>

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1 Welcome

MAXQDA 11 is a high-performance program for professional social science-oriented data analysis, ideal for researchers from social sciences, education, economics, and many others, who work with and analyze text in their professional capacities.

MAXQDA 11 is the result of more than 20 years of continuous development: MAX for DOS was released in 1989, winMAX for Windows came out in 1994, and the first version of MAXQDA was released in 2001. The current version, MAXQDA 11, builds on this tradition. When MAXQDA 1 came out in 2001, it was a completely new program that didn't adopt a single line of code from the previous version winMAX. The new version was immediately accessible to users of the former version, though, because it was based on the same basic ideas, concepts, and handling as the older version.

MAXQDA 11 is a further developed version of MAXQDA 10 – it contains many changes, both small and large. An overview of these changes and improvements can be found on the website at www.maxqda.com.

This handbook gives a detailed overview of all functions of MAXQDA. The short introduction, also available in the MAXQDA help menu, is a good way to get a more general introduction to the program.

This handbook is not designed as a quick introduction, but rather systematically explains all functions and features of the program. It is also not set up to follow the logic of learning the program.

MAXQDA conferences, titled "CAQD – Conference on Computer-Aided Qualitative Data Analysis," are held annually in Marburg, Germany. More information on past and upcoming conferences can be found on the website www.caqd.org.

Attached to this handbook, you will find tips for troubleshooting possible problems that arise. There you will find information about the technical details and limits of MAXQDA. There is also an internet support available to all registered users that have questions regarding the use of the software: www.maxqda.com.

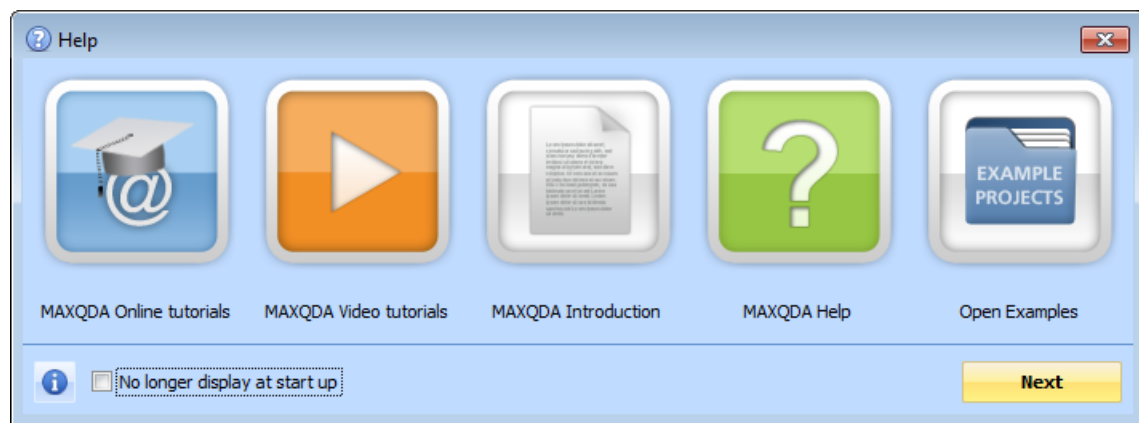
If you find any bugs or experience other problems with specific functions of the software, please don't hesitate to contact support. We are dedicated to constantly improving and updating the software, which is partially dependent on feedback from our users. If you are interested in staying abreast of the newest developments and program updates, keep checking back on the MAXQDA website: www.maxqda.com.



2 MAXQDA Screens and Menus

2.1 Starting the Program

After opening MAXQDA, a window will appear with the MAXQDA logo and then the following welcome dialogue:



The quick introduction to MAXQDA: direct access to online tutorials, help, sample projects

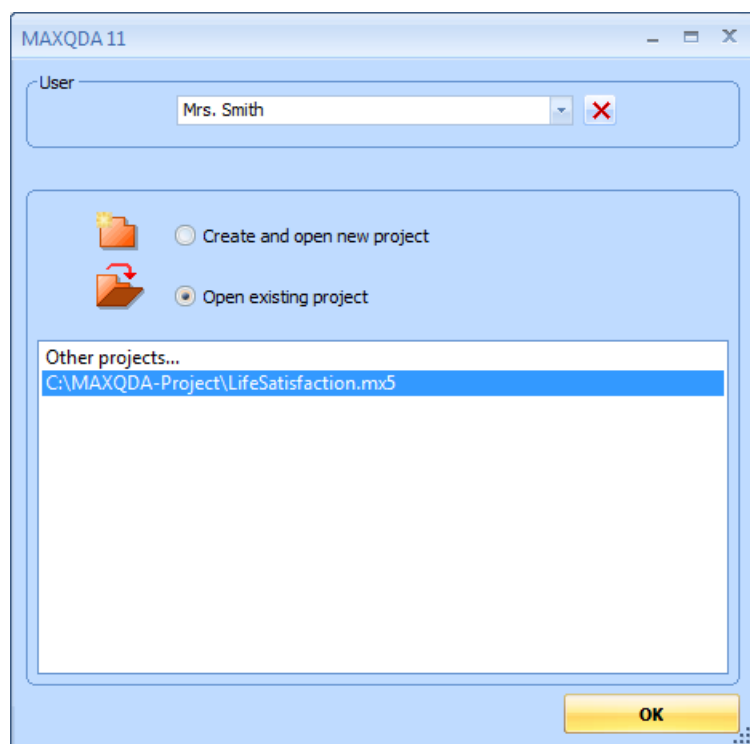
MAXQDA Online tutorials – opens the overview of the online tutorials on the MAXQDA website (Internet connection required!).

MAXQDA Video tutorials – opens the overview of the video tutorials on the MAXQDA website (Internet connection required!).

MAXQDA Introduction – opens a PDF file that clearly explains all the basic functions of MAXQDA.

MAXQDA Help – opens the Help file that you can browse and use as a reference for individual functions.

Open Examples – lists the example projects included in the installation of MAXQDA, allowing you to explore the features of MAXQDA in detail. First click on a project from the list, and then click **OK** to open the selected sample project.



The MAXQDA start window: choose user name and projects

You can enter your name or initials in the user field, so that all of your actions, whether they be importing documents, coding segments, or writing memos, are marked with your user signature. This user system is especially helpful when you are working in a team. You can then look to see who in the team did each action.

To create and open a new project, click **OK**. Otherwise select **Open Existing Project**. In the bottom pane select a recent project, or click on **OK** to open another project.

Important: It is strongly recommended that you regularly create project backups and save them on external hard drives or flash drives, in order to minimize losses in case of computer problems.

Project files from MAXQDA 11 have the extension MX5. If your computer system hides file extensions, you can identify data by the MAXQDA symbol and by the file type "MAXQDA 11 – files." You can now enter your data including interview transcripts, reports as PDF files or video clips, as well as import documents into the created or opened project.

Note: MAXQDA 11 is reverse compatible and partially forward compatible, meaning projects can be imported and saved from previous versions and MAXQDA 11 projects can be saved as MAXQDA 10 projects.

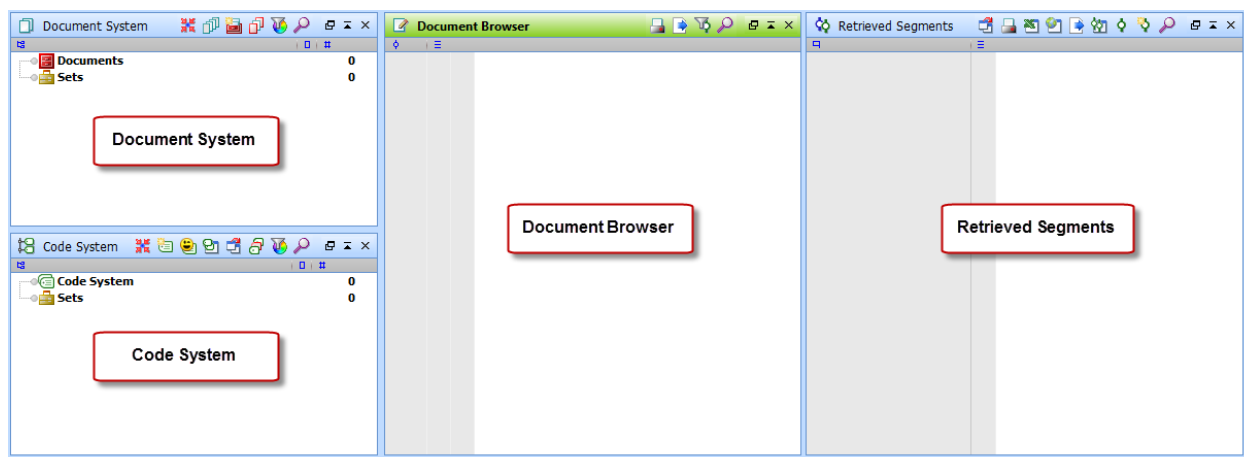


2.2 The MAXQDA Interface and the Four Main Windows

After opening or creating a new project, you will see the MAXQDA interface, which is designed similar to many other Windows programs:

- ☐ At the very top of the screen, you will see the project document name including the location where it is saved.
- ☐ Underneath the file name, you will see the drop-down menus and various toolbars with buttons that offer quick access to frequently-used functions.
- ☐ A status bar is found at the bottom of the screen.

MAXQDA's four main windows occupy the main part of the workspace:









The four main MAXQDA windows

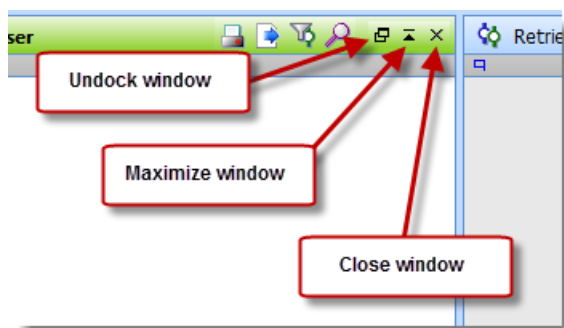
The four windows have the following functions:

- ☐ The “Document System” provides an overview of all the texts, pictures and media files of your project. You also have the option of organizing these documents in document groups, which act as folders.
- ☐ The “Code System” displays all the codes and subcodes and code memos that you have created along with the number of times each of the codes has been used.
- ☐ The “Document Browser” displays one of the documents from the “Document System,” where it can then be worked on. You can highlight, edit, code, create links, or attach memos in this window. Geo-Links are also displayed in the Document Browser.
- ☐ The “Retrieved Segments” window is a results window. Here you can display a selection of coded segments (Retrieval).

Small Toolbars in the Windows

Each window has a toolbar, which gives you quick access to frequently-used functions. By hovering over each symbol, you can see what each symbol does. Symbols that are found in more than one toolbar always have the same function, such as:

-  prints out the content of the window
-  exports the content of the window
-  allows for context search in associated window
-  undocks the window
-  maximizes the window to the largest possible size
-  closes the window

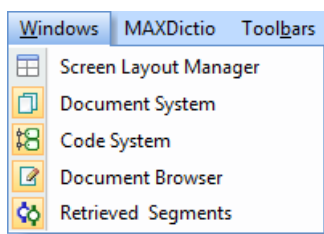


Small toolbar within a window

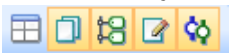

Hide and Show Main Windows

All four windows can be shown or hidden in various ways so that you can control the arrangement of windows on your screen and optimize your work space.

1. You can hide or show the windows through the drop-down menu.



Hide and show four main windows in the menu

2. You can hide or show the windows by clicking on the appropriate icons in the "MAXQDA standard" toolbar: .
3. You can close the windows by clicking on the appropriate icon  in the upper-right hand corner of each window. Next to the close icon, you also have the option of clicking to maximize the window to its largest possible size.

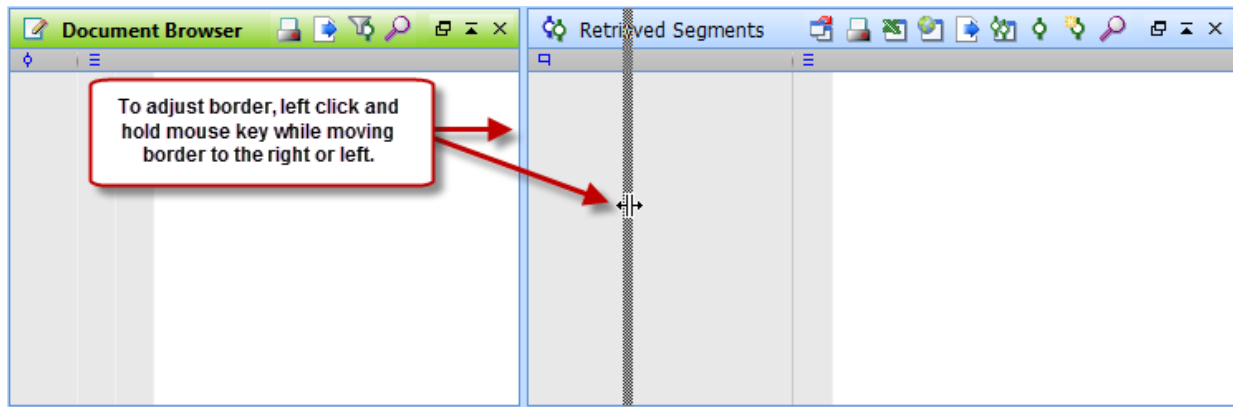
Note: You can hide or show all windows, but at least one window must be shown at all times, which means it isn't possible to close all four windows.



Optimize interface: Customize Window Width

The optimal setup of your windows in MAXQDA 11 depends largely on the size of your monitor and the set resolution. It is not recommended that you use a resolution smaller than 1024 x 768.

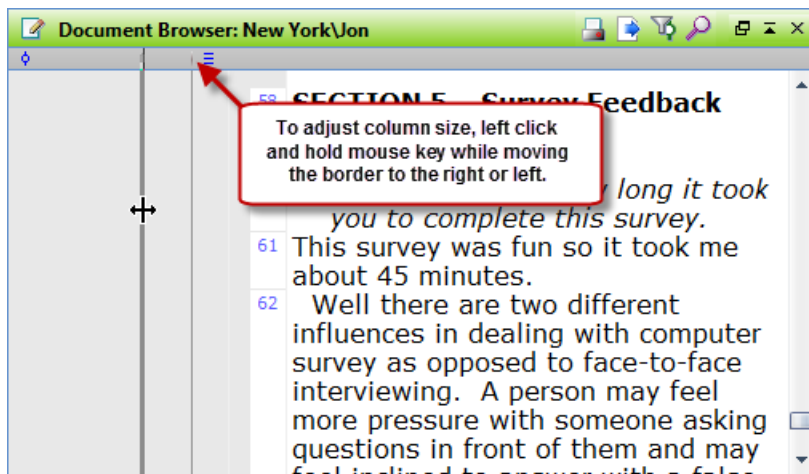
The size of each window in comparison to the others can be adjusted as you wish by clicking with the left mouse button on a border and dragging it in the appropriate direction.



Window height and width can be adjusted by clicking and dragging borders with the mouse

Optimize Interface: Customize Coding Columns

The “Document Browser” window includes the coding column, a gray area left (or right) of the text document in which codes are displayed. To adjust the width of the coding column, move the mouse pointer to the top of the line separating it from the document, press the left mouse button, and drag the column to the left (or right) side of the text.




Adjusting the width of the coding column

You can choose whether or not to display the names of each code by clicking on an empty spot in the coding column and right-clicking. A window will then appear that allows you to change this setting.

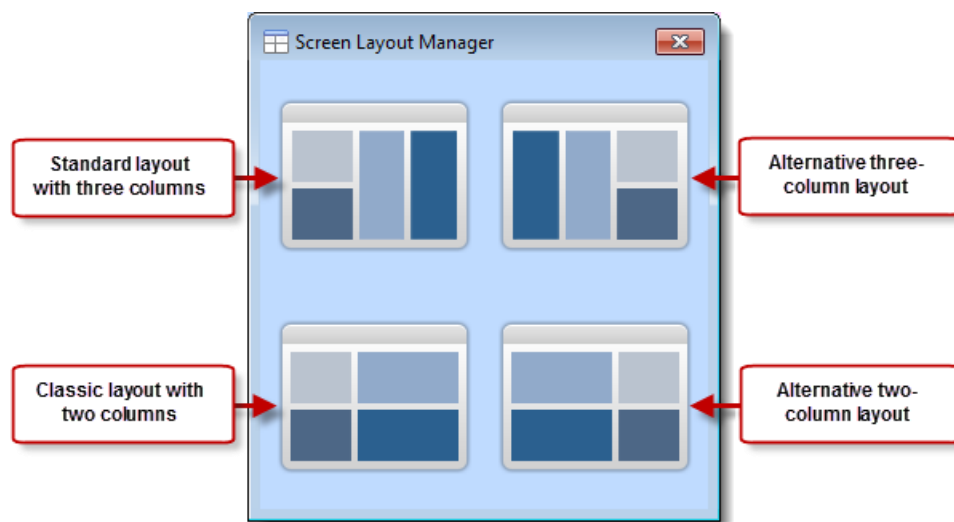
Optimize Interface: The Two-Column and Three-Column Layout

By default, MAXQDA 11 uses a three-column layout that takes advantage of the wide-screen format of modern monitors better than the traditional four-window layout, which has long been a characteristic of MAXQDA. You can easily change back to the traditional four-window view with the help of the “Screen Layout Manager.” This is appropriate for screens with normal formats.

To call up the Screen-Layout-Manager, select:

1. In the opening window > **Screen-Layout-Manager**; or
2. The  icon in the main toolbar.

The Screen-Layout-Manager allows you to select from among four options:



The Screen-Layout-Manager

Top left: The new default layout in three columns. The “Document Browser” is found in the middle and “Retrieved Segments” in the third column on the far right.

Top right: Alternative three-column layout with the “Document System” and the “Code System” on the right side.

Bottom left: The classic two-column layout with the “Document System” and the “Code System” on the left side.

Bottom right: Alternate two-column layout with the “Document System” and the “Code System” on the right side

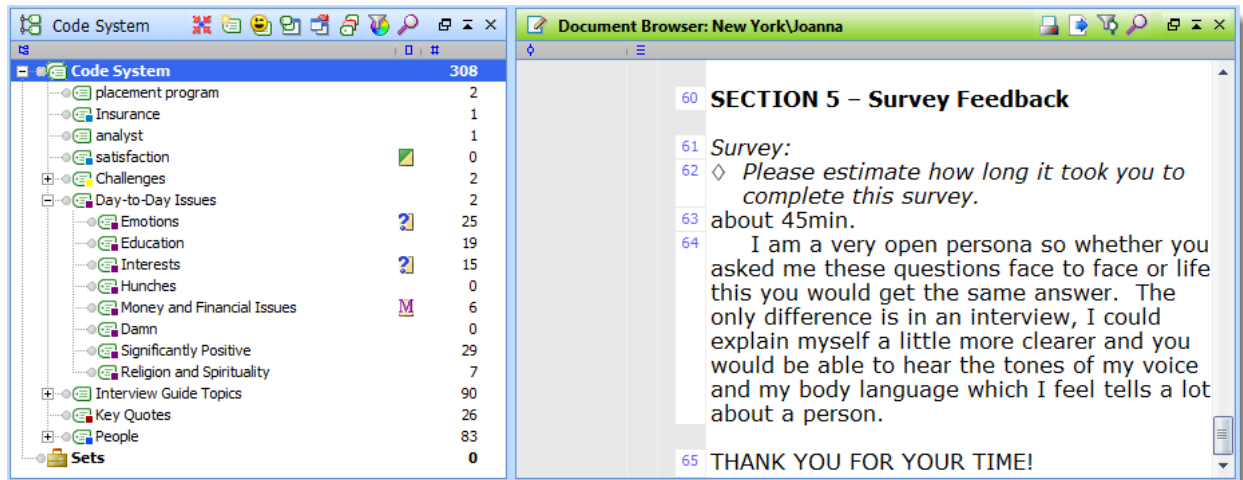
Note: For screens less than 1,280 pixels wide, MAXQDA defaults to the two-column layout.

Optimize Interface: Small Screens

When coding a document, it is sometimes helpful to close the “Document System” and “Retrieved Segments” window, so the “Code System” and “Document Browser” are larg-



er. The “Document Browser” can then be made even bigger by dragging the border in the direction of the “Code System.”

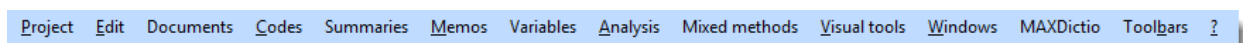


Optimal window setup when coding

It is similarly helpful to close the “Document Browser” when you are doing retrievals (Coding Query), so you have access to the three necessary screens while maximizing the size of your “Retrieved Segments” window. Whenever you now click on the text information box in the “Retrieved Segments” window, the corresponding text will be open in the “Document Browser” window.

2.3 The Main Menu

The main MAXQDA menu includes the following menus:



The main MAXQDA menu

The drop-down menus offer the following functions:

Project Menu

In the **Project** menu, you can choose to create a new project, open an existing project, or complete other project management functions like printing, exporting, and importing. This makes it possible, for example, to print out the “Document System,” the “Code System,” the “Retrieved Segments” window, and the currently opened document in the “Document Browser.” You can also change the user name or access the options menu to change your settings.

Edit Menu

Here you will find, as in all Windows programs, options to **cut**, **copy**, and **paste** text into the Windows clipboard. In MAXQDA, these options are possible only when the "Document Browser" is active. Moreover, you'll find options like undo and undo all.

Document Menu

In this menu, you can create a new document group or a new document or import documents. A special function also allows you to import structured document forms.

The document shown in the "Document Browser" can also be printed or exported, and the "Overview of links" in the project can be called up.

Codes Menu

This menu offers functions that connect to your codes, and some of the functions can also be accessed by right-clicking in the "Code System" window.

The available functions allow you to create a new code, view an overview of code frequencies, or create a complete index of all codes assigned to all document segments.

You also have the option of printing the "Code System," importing or exporting the "Code System." The list of all coded segments can be printed or exported.

Summaries Menu

This new menu item in MAXQDA 11 allows you to create summaries of coded segments and insert them into Grid Tables for a clear overview. The summaries represent, to a certain extent, a new level of data analysis.

Memo Menu

The Memo Manager is the most important function in this menu and gives you a table with an overview of all the memos in the project. This includes all memos including document memos, document group memos, code memos, and free memos. You can view and edit each memo in this table as well as sort the memos according to any of the column headings.

The menu also offers various selection functions: only memos of open documents, only memos from certain users, etc.

Variables Menu

The variables menu allows you to create, edit, and set values for document variables, as well as switch between the various variable views. You can also import or export variables from this menu and call up code variables.

You will also have access to MAXQDA 11's new Statistics and Graphics functions, which can be called up for both document and code variables.



Analysis Menu

This menu offers many different options related to the lexical search and retrieval functions.

The lexical search option allows you to search within documents (or just the activated documents), memos, and retrieved segments. The search function can be used to search for certain words, phrases, or character combinations. The documents to be searched can be chosen in various ways. You can search for keywords in context and automatically code the hits that are found.

Most of this menu's functions relate to retrieval. You can select various criteria for the segments to be found (e.g. OR, AND, logical combinations, NEAR, etc.).

The retrieved segments can also be filtered according to various criteria in the "Retrieved Segments" window, based on a weight filter and/or the inclusion/exclusion of subcodes.

Mixed Methods Menu

This menu includes various functions for the combination of qualitative and quantitative data using documents and variables. The logical activation allows you to activate documents or document groups based on their assigned variables, thereby limiting the retrievals to certain document segments. The Quote Matrix and Crosstabs functions are different visualizations that show connections between coded segments and selected variables or variable categories. The Typology Table is similar and shows percentages and/or mean values and standard deviations for qualitatively-designed typologies.

Visual Tools Menu

This menu offers seven different visualization function options. MAXMaps, the tool for qualitative modeling; the Code Matrix Browser; the Code Relations Browser; and the Document Comparison Chart are all for numerous or all of your documents; and the Document Portrait and Codeline visualizations apply only to one document at a time, which means that they can only be selected when a document is activated in the "Document System."

Windows Menu

This menu allows you to hide or view each of the four main MAXQDA work area windows.

MAXDictio Menu (optional)

This menu is only available if you the MAXDictio module is installed. It is an add-on, which offers a number of functions for quantitative content analysis, e.g. coding according to created dictionaries and viewing word frequencies.

Toolbars Menu

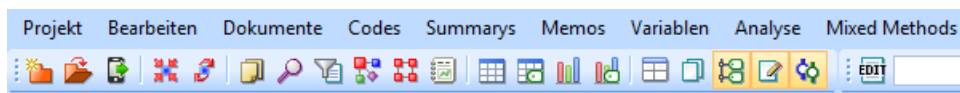
The eight MAXQDA toolbars can be turned on or off in this menu. After turning on a toolbar, you can move the toolbar around, freely placing it anywhere on your screen. If a toolbar is closed and then opened again, it will reappear where it had last been placed.

Help Menu (?)

Here you will find the Introduction to MAXQDA in PDF format, which may be helpful to print out. You will also find detailed help and links to the online tutorials, which give you a quick introduction to the program. You can also search for an update and download the update if you don't have the most recent version. The Tips and tricks option opens a window with a number of helpful hints for working with the software.

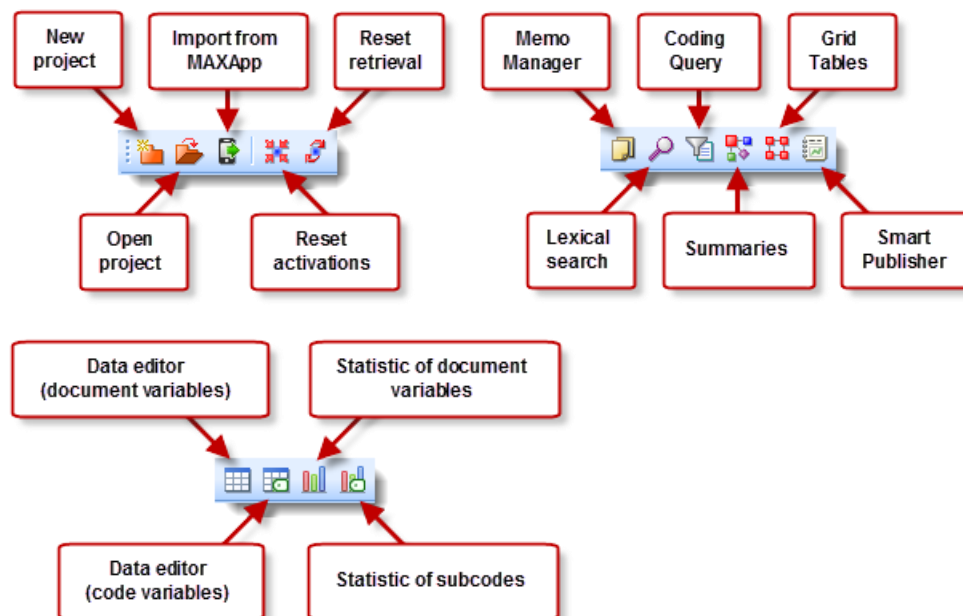
2.4 The Toolbars

MAXQDA's main toolbar is called "MAXQDA standard" and should always be visible. It contains icons that provide quick access to frequently used program functions. By default, the toolbar is located directly below the main menu:



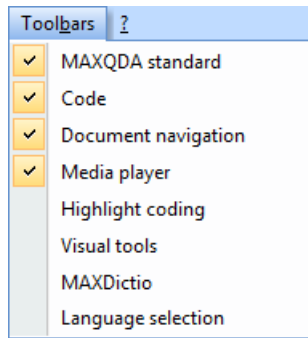
"MAXQDA standard" toolbar

The icons represent the following:



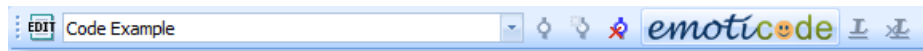
Overview of the buttons in the "MAXQDA standard" toolbar

In addition to the main toolbar ("MAXQDA standard"), there are seven other toolbars that can be shown or hidden as necessary. These toolbars can be hidden or displayed in the **Toolbars** menu.



The "Toolbars" menu

The **"Code" toolbar** offers quick access to functions for coding, linking text segments, and turning on/off Edit Mode.



"Code" toolbar

The **"Document navigation" toolbar** makes it easy to navigate within PDF documents and zoom in and out in the "Document Browser."



"Document navigation" toolbar

The **"Media player" toolbar** makes it possible to play audio and video files connected to texts and insert time stamps.



"Media player" toolbar

The **"Highlight coding" toolbar** has five icons, which allow you to highlight/color code segments of text in a document.



"Highlight coding" toolbar

The **"Visual tools" toolbar** has seven symbols, giving you quick access to the mapping tool MAXMaps as well as the visualization functions "Code Matrix Browser," "Code Relations Browser," "Document Comparison Chart," "Document Portrait," "Codeline," and "Crosstabs."



"Visual tools" toolbar

The “**MAXDictio**” **toolbar** makes it easy to access six of the most common functions in the add-on module MAXDictio for quantitative, dictionary-based content analysis.



“MAXDictio” toolbar

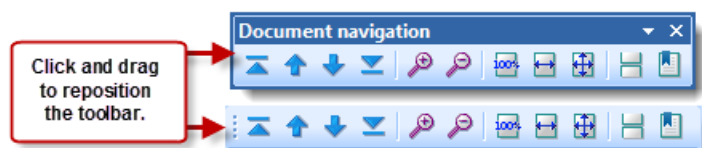
The last **toolbar** “**Language selection**” allows you to switch interface languages with a single click.



“Language selection” toolbar

Position Toolbars on the Screen

All toolbars can be positioned anywhere on the screen, as per usual in Windows programs. Simply click on the four points on the left edge of a toolbar or the title of a free-floating toolbar and place the toolbar at the desired position.



Position toolbars

2.5 The Context Menus and Toolbars in the “Document System”

In addition to the various menus accessible from the menu bar, MAXQDA can be controlled using the toolbars and context menus in their respective windows. The functions that relate to the handling of documents are concentrated in the “Document System” window.

2.5.1 Toolbar

The toolbar at the top of the “Document System” window offers quick access to the following frequently-used functions:



Reset activations – resets current activations



Import documents – allows you to insert text, PDF files, spreadsheets, images and media files into the project.



New group – creates a new document group directly above the document group, displayed in the highest position.



Activation by document variables – allows activation of documents subject to their variable values.



Activation by color – allows activation of documents subject to their color attribution.



Context search – allowing for searches for a specific document name.



Undock window



Maximize window



Hide window

2.5.2 Documents and Document Groups

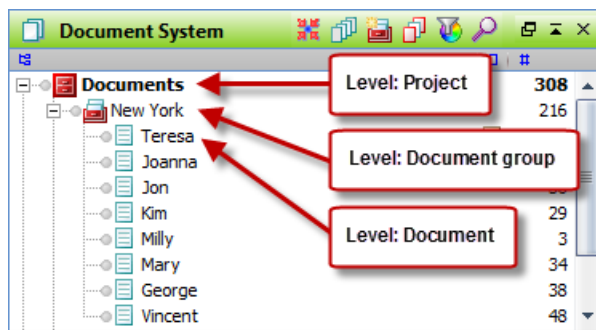
In order to better organize your documents, it is possible to create document groups, which documents can then be moved to. In MAXQDA, it is not, however, absolutely necessary that each document be put in a document group. Documents can simply be left in the main “folder.”

Documents can also be temporarily grouped together from various document groups for certain aspects of your analysis. In MAXQDA, these are called document sets.

Example: In an interview-based study on Kindergarten where teachers, administrators, and parents are interviewed, it makes sense to make three folders, one for each category of interviewees. All interview transcripts would be imported into the project (perhaps called “KindergartenStudy”) and then assigned to one of the three created document groups, named “Administrator,” “Teachers,” and “Parents.”

In the “Document System,” it is possible to differentiate between three levels, each level offering a different context menu:

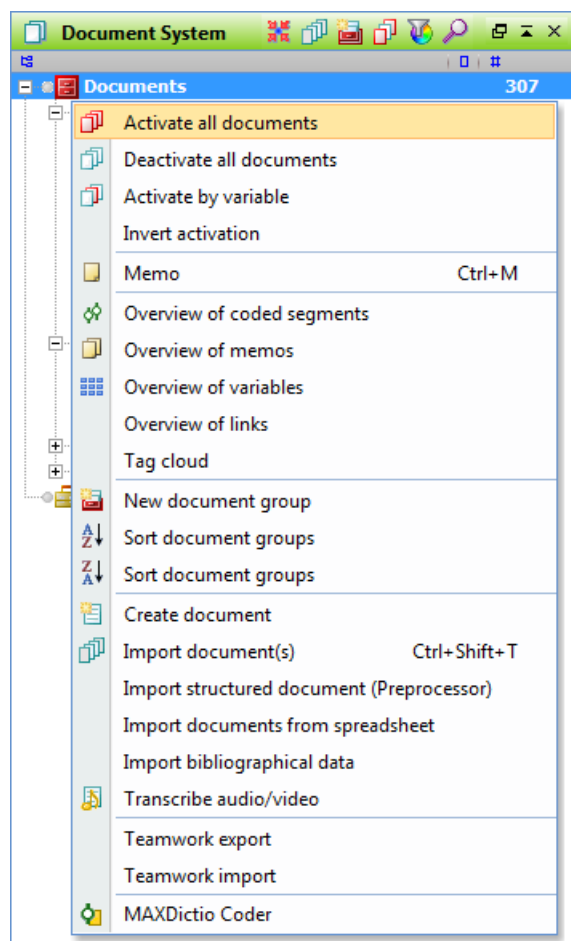
- ☐ the project level
- ☐ the document group(s) level
- ☐ the document level



Three levels in the “Document System” window

2.5.3 The Upper Level

The upper level in the “Document System” hierarchy is the project level. After creating a new project, the “Document System” is empty except for the Documents icon. By right-clicking on this icon, you will call up the following context menu:



Context menu for the upper level in the Document System

The menu contains the following functions:

Activate all documents – activates all documents in the entire project file.

Deactivate all documents – deactivates all documents in the entire project.

Activate by variable – allows you to activate documents based on their document variables (e.g. to activate GENDER = Male, AGE > 29, Education = High School).

Invert activation – activates all documents that are not currently activated and deactivates all those documents that are currently activated. This is especially helpful when doing logical activations; you can then very quickly call up segments from documents with the contrasting document variables.



Memo – creates a memo that can hold information about the entire project.

Overview of coded segments – list all coded segments from the entire project in table form.

Overview of memos – lists all memos in the entire project in table form.

Overview of variables – shows a matrix with all variables in the entire project.

Overview of links – lists all links in the entire project in table form.

Tag cloud – creates a visualization of the 50 most frequently-used words in the entire project.

New document group – creates a new document group.

Sort document groups – sorts all document groups alphabetically from A to Z.

Sort document groups – sorts all document groups in reverse alphabetical order.

Create document – inserts a new, empty document with a default name into the “Document System.” The document is also automatically opened and put in Edit Mode, allowing you to immediately type content into the document.

Import document(s) – allows you to import document(s) into the project. They will be inserted at the highest hierarchical level of the “Document System.” After clicking on this function, a standard Windows screen will appear, which allows you to navigate to the document(s) you wish to import. These documents can be in TXT, RTF, DOC/X, PDF, JPG, GIF, TIF and PNG format. Media files can also be selected here; however, due to their size, they are not imported into the project file but stored externally and assigned to a text document.

Import structured documents (Preprocessor) – facilitates the import of documents already coded with the help of MAXQDA’s Preprocessor.

Import documents from spreadsheet – allows previously-coded text in spreadsheet format (e.g. from an Excel document) to be imported into the project.

Import bibliographical data – this option is used to import bibliographic data in RIS format.

Transcribe audio/video – facilitates the import of an audio or video file to be transcribed within MAXQDA. The new document name will be that of the chosen audio/video file.

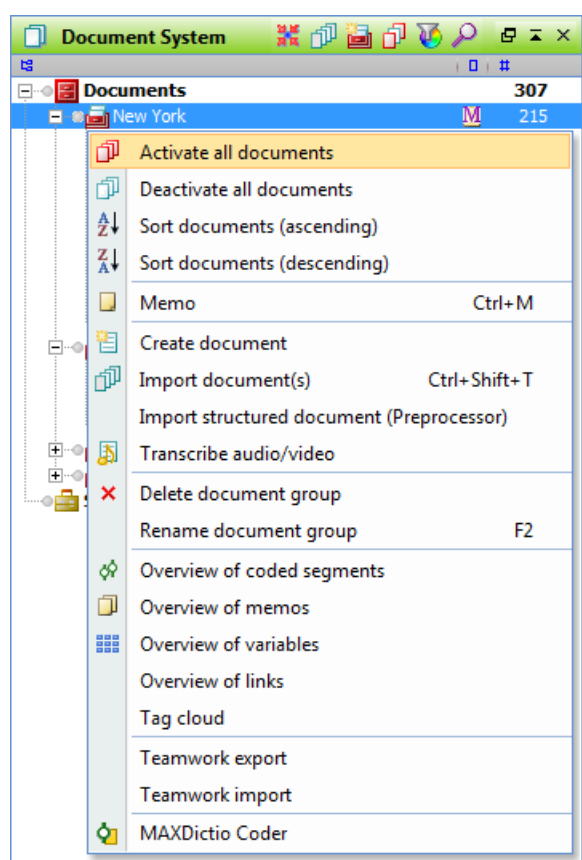
Teamwork export – allows for the export of all coded segments, memos, and project variables.

Teamwork import – allows for the import of all coded segments, memos, and project variables.

MAXDictio Coder – opens the MAXDictio Coder (will be displayed only if the MAXDictio add-on is installed).

2.5.4 The Middle Level: Document Groups

A project can contain as many different document groups as you wish to create. A context menu is also available at the document group level, which offers functions that only affect that specific document group that was right-clicked on.



Context menu for the middle (document group) level in the Document System

These are the following options available in the document group context menu:

Activate all documents – activates all documents in the document group.

Deactivate all documents – deactivates all documents in the document group.

Sort documents (ascending) – sorts all documents in the document group alphabetically, from A to Z.



Sort documents (descending) – sorts all documents in the document group reverse alphabetically, from Z to A.

Memo – creates a memo that can hold information about the document group.

Create document – inserts a new, empty document with a default name into the document group. The document is also automatically opened and put in Edit Mode, allowing you to immediately type content into the document.

Import document(s) – allows you to import document(s) into the document group. After clicking on this function, a standard Windows screen will appear, which allows you to navigate to the document(s) you wish to import. These documents can be in TXT, RTF, DOC/X, PDF, JPG, GIF, TIF or PNG format. Media files can also be selected here; however, due to their size, they are not imported into the project file, but stored externally and assigned to a text document.

Import structured documents (Preprocessor) – facilitates the import of documents already coded with the help of MAXQDA’s Preprocessor into the document group.

Import documents from spreadsheet – allows previously-coded text in spreadsheet format (e.g. from an Excel document) to be imported into the document group.

Transcribe audio/video – facilitates the import of an audio or video file to be transcribed within MAXQDA into the document group. The new document name will be that of the chosen audio/video file.

Delete document group – deletes the document group, including all documents, coded segments, memos, and variables that are associated with it. MAXQDA only completes the deletion after confirming that you do indeed wish to carry out the action.

Rename document group – lets you give a new name to the document group.

Overview of coded segments – list all coded segments from the document group in table form.

Overview of memos – lists all memos in the document group in table form.

Overview of variables – shows a matrix with all document variables from the document group.

Overview of links – lists all links in the document group in table form.

Tag cloud – creates a visualization of the 50 most frequently-used words in the document group.

Teamwork export – allows for the export of all coded segments, memos, and variables from the document group.

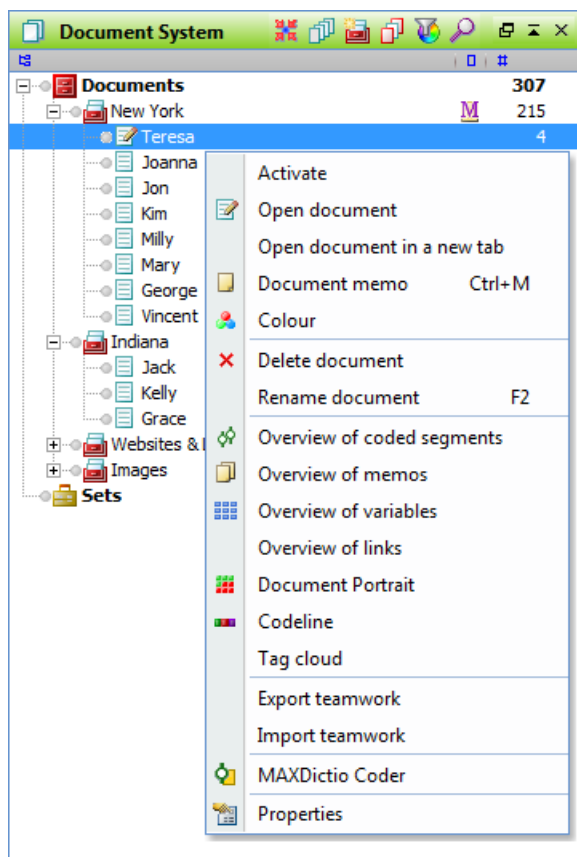
Teamwork import – allows for the import of all coded segments, memos, and variables from the document group.

MAXDictio Coder – opens the coding tool MAXDictio (will be displayed only if the MAXDictio add-on is installed).

Document sets are handled similarly to document groups. They are a temporary grouping of documents, but only contain links to the documents instead of the documents themselves. The context menu that appears when you right-click on a document set are similar to the document group context menu, but they do not contain the options to import documents.

2.5.5 The Lower Level: The Document

A context menu is also available at the individual document level and contains a variety of functions connected to the document you have right-clicked on.



Context menu for the lowest (document) level



The menu contains the following functions:

Activate – activates the document; if the document is already activated, the option will be to deactivate it.

Open document – opens the document in the “Document Browser.” The document opened in the “Document Browser” is always visualized in the “Document System” with a pen symbol.

Open document in a new tab – opens the document in a new tab in the “Document Browser.” In the “Document System” the document which is currently displayed is indicated with a symbol (document with pen).

Document memo – creates a memo for the document.

Color – opens a window that allows you to select a color for the document.

Delete document – deletes the document including all connected information, including memos, coded segments, variables, etc.

Rename document – allows you to give the document a new name.

Export document – The selected document will be exported and saved in a location of your choice.

Overview of coded segments – list all coded segments from the document in table form.

Overview of memos – lists all memos in the document in table form.

Overview of variables – shows a matrix with all variables in the document.

Overview of links – lists all links in the document in table form.

Document Portrait – opens a visualization of the document that uses the code colors of the coded segments in the document to create a picture of the document. The size of the coded segment acts as the weighting factor, meaning that the longer the coded segment, the more space that color takes up in the visualization.

Codeline – opens a visualization of the coded segments of the document. A matrix is created with the codes on the y-axis and the paragraph numbers on the x-axis. It is then possible to see which codes were used in each paragraph of the document.

Tag cloud – creates a visualization of the 50 most frequently-used words in the document.

Teamwork export – allows for the export of all coded segments, memos, and variables for the document.

Teamwork import – allows for the import of all coded segments, memos, and variables for the document

MAXDictio Coder – opens the MAXDictio Coder (will be displayed only if the MAXDICTIO add-on is installed).

Properties – opens a window with all the properties of the document, which you can then edit (e.g. whether or not the document should be read only). Here a media file can also be linked with the corresponding document (ex. an audio file with the corresponding transcribed interview) or encoded directly.

2.6 Context Menus and Toolbar in the “Document Browser”

2.6.1 Toolbar

The “Document Browser” is MAXQDA's main work window: Here you can encode text and images, write memos, link text and images together, add external links and more. The majority of the functions you will carry out in the “Document Browser” are available in the context menu, which you can access by simply right-clicking in the window. The most commonly-used functions are also available in the toolbar at the top of the “Document Browser.” It contains the following functions:



Print document – allows you to print the document displayed in the window, along with memos and codes



Export document – saves the open document in a location of your choice



Filter visualized coding stripes – allows you to choose which coded segments should be visualized in the coding column based on their color



Context search – allowing for searches within the open document



Undock window



Maximize window



Hide window

2.6.2 Tabs

MAXQDA includes the option of opening more than one document in the “Document Browser” at once, each opened in a separate tab. This allows you to switch quickly back and forth between documents. Once you have opened documents in tabs, you can switch to any of them by clicking on the appropriate tab at the top of the “Document Browser.” Documents can be opened in tabs by holding the Shift key and double-clicking on the document or by right-clicking on the document and selecting **Open in a new tab**.

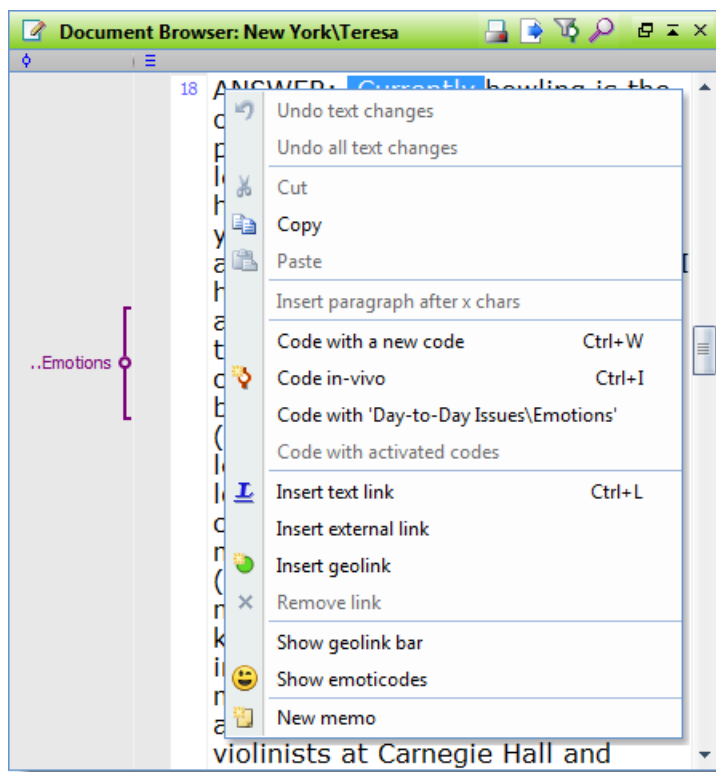


Once a document has been opened in this way, tabs will appear at the top of the “Document Browser” with the names of each of the documents open. You can switch between the documents by clicking once on the appropriate tab. The tabs can be closed individually.

If tabs are already open, a document opened in the normal fashion from the “Document System” will appear in the currently selected tab in the “Document Browser.”

2.6.3 Context Menu

If you highlight a segment of text or select a section of a picture opened in the “Document Browser,” a context menu will appear with a large selection of various functions.



Context menu of a highlighted segment of text in the Document Browser

Most of the available functions are self-explanatory, but they will still be explained quickly in the following section.

Note: For PDF and image documents, some functions such as cut and paste are not available because the file formats do not permit modification. Some functions are also unavailable for spreadsheets.

Undo text changes – undoes the most recent change to the text (only works when in Edit Mode).

Undo all text changes – undoes all changes to the text that have been done since Edit Mode was turned on (only works when in Edit Mode).



Cut – cuts the highlighted text out of the document as in Microsoft Word.

Copy – copies the highlighted text as in Microsoft Word.

Paste – same functionality as, for example, in Word: Pastes the contents of the clipboard.

Search for highlighted text – opens the lexical search, with which you can search for the selected text in all or part of the project.

Display assigned codes – displays the codes assigned to the selected segment.

Insert paragraph after x chars – sets the number of characters that should make up each line and sets each line to be handled as a paragraph. Since this function changes the text, it is necessary to turn on Edit Mode to use this function. Read-only documents can also not be edited in this way unless you change the permission settings to make the document editable.

Code with a new code – codes the highlighted text or section of a picture with a new code that you will be able to create after clicking on this option.

Code in-vivo – codes the highlighted text with a new code created and named with the highlighted text.

Code with "xyz" – codes highlighted text or section of a picture with the most recent code used.

Code with selection – codes highlighted text or section of a picture with all activated codes in the "Code System."

Insert document link – sets an anchor for a text link, which is a connection between two sections of a text or image.

Insert external link – opens a window to allow you to choose a document to be linked to the highlighted section of the text or image.

Insert weblink – allows insertion of link to a website.

Insert geolink – opens a window where you can select a KML file, which will be the reference for your geolink inserted in the highlighted text or section of picture.

Remove link – deletes the link at the section where you right-clicked.



Show geolink bar – displays the geolink column next to the memo and code visualization column next to the text in the “Document Browser.” All geolinks are visualized with a symbol in this column.

Show emoticodes – opens emoticode window, from which you can code selected segments.

Insert memo – creates a memo next to the section of text where you right-clicked.

2.7 Context Menus and Toolbar in the “Code System”

2.7.1 Toolbar

The toolbar at the top of the “Code System” window offers quick access to the most commonly-used functions in this window. These functions are:



Reset activations – resets current code activations.



Create new code – adds new code into the code system.



emoticode view on/off – hides or shows regular codes in the “Code System.”



Code Browser – this is an alternative view of the “Code System” and the code memos. It can be especially helpful if you want to create many codes at one time.



Change to table view – switches between tree view (as in Windows Explorer), and table view of the code system.



Activation by code variable – allows the activation of codes depending on their variable values.



Activation by color – allowing codes to be activated based on their assigned colors.



Context search – allowing for searches for codes within the “Code System.”



Undock window



Maximize window

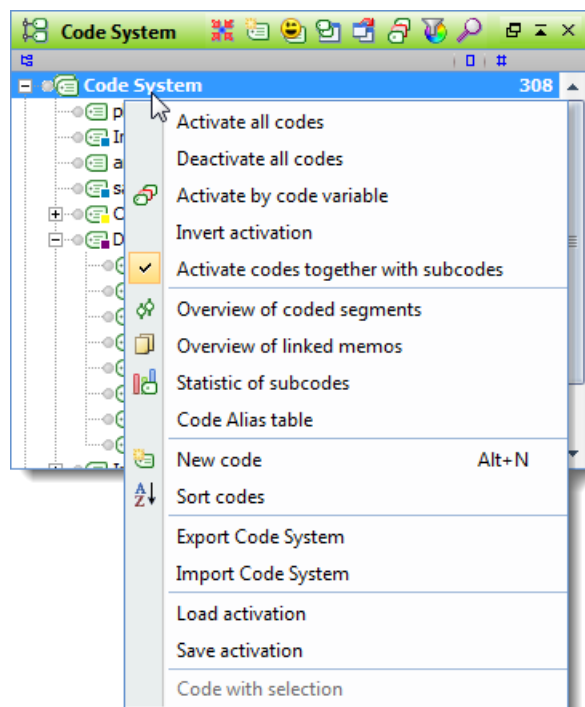


Hide window

2.7.2 The Upper Level in the “Code System”

When you create a new project, the “Code System” is empty except for the “Code System” icon and label. This represents the root directory or folder, the upper level of the “Code System” hierarchy. If you right-click on the symbol or the label next to it, you will

see a context menu. Since most selectable functions only apply to a non-empty Code System, some codes have already been inserted into the following illustration.



Context menu for the upper level of the Code System

This menu offers access to the following functions:

Activate all codes – activates all codes in the entire “Code System.”

Deactivate all codes – deactivates all codes in the entire “Code System.”

Activate by code variable – allows for activation based on code variable values (e.g. by speaker in a group discussion).

Invert activation – activates all currently deactivated codes and deactivates all currently activated codes in the entire “Code System.”

Activate codes together with subcodes – sets preference that all subcodes automatically be activated when top level codes are activated.

Overview of coded segments – opens a table with all coded segments coded with any code in the entire “Code System.”

Overview of linked memos – opens a list of all memos that are linked to any code in the “Code System.”

Statistic of subcodes – calls up the Statistics and Graphics functions which generate frequency tables and charts with the number of encodings.

Code Alias table – all memos that are linked to a code will be displayed.



New code – creates a new code. The shortcut keys **Alt+N** can also be used for this function.

Sort codes – sorts all codes in the upper level of the “Code System” hierarchy.

Export Code System – exports and saves the “Code System” as a MAX exchange file (.mtr).

Import Code System – import a “Code System” from a MAX exchange file (.mtr).

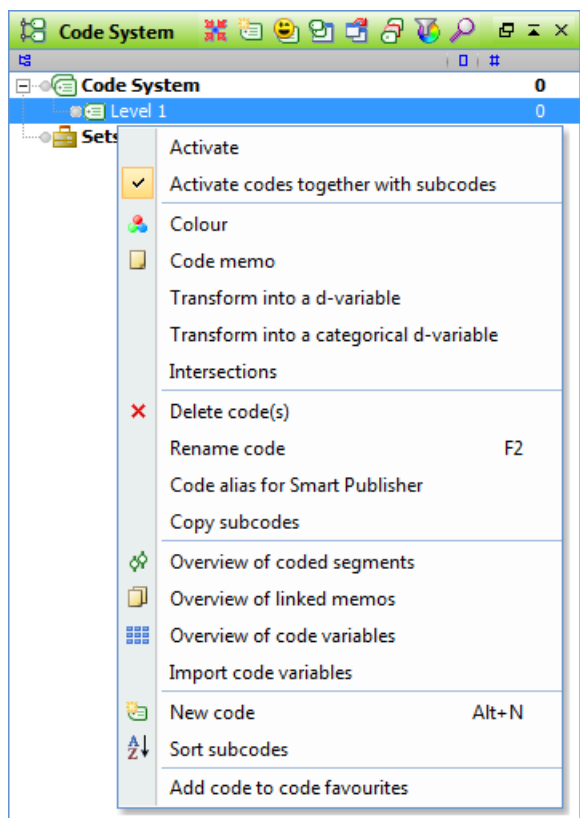
Load activation – code activation status will be imported from a file previously created in MAXQDA.

Save activation – the current activation status of the code is stored in a file that can be called up at a later time in order to establish this specific activation status.

Code with selection – the currently highlighted text or image segment, or video or audio clip, is encoded simultaneously with all activated codes.

2.7.3 The Lower Level: Individual Codes and Subcodes

There is also a context menu for the single code/subcode level, which offer functions that affect the code you right-clicked on.



Context menu on the code/subcode level

The following functions are shown in the context menu:

Activate/Deactivate – activates or deactivates the code, depending on whether it is currently activated or not. If this code has subcodes, they too will be activated (or deactivated) if the option in the following context menu row is selected. If you do not wish to activate all subcodes, they can be individually deactivated by right-clicking on them and selecting the appropriate option in the context menu that appears.

Activate codes together with subcodes – automatically activates subcodes of the current code when it is activated.

Code – codes the currently highlighted text or image segment in the “Document Browser” with the current code.

Color – opens a window where you can set a color for the code.

Code memo – creates a memo for the current code.

Transform into a d-variable – creates a numerical document variable with the name of the current code in the variable list. The number of times the code appears in each document is entered as the variable value for each document.



Transform into a categorical d-variable – creates a new string variable whose value for each document is the subcode that appears most often in that document (only works for codes that have subcodes).

Intersections – shows a list of all codes that intersect with the current code. The code that intersects most often is listed first. Clicking on an entry in the list displays the corresponding intersecting segments in the “Retrieved Segments” Window.

Delete code(s) – the selected code is deleted after confirmation. In the alternative view of the “Code System” as Table, several codes can be deleted simultaneously. When a code is deleted, every association to coded segments will be deleted. Subcodes, where assigned, will also be deleted. The removal of codes from a code system can be visualized as the cutting of branches from a tree: when a branch (code) is cut, all attached subcodes and subcodes of subcodes are also cut.

Rename code – allows you to create a new name for the code.

Code Alias for Smart Publisher – here you can assign an alternate name for a code that will be used if the coded segments are exported with Smart Publisher. The Smart Publisher generates a complete formatted report of selected coded segments.

Copy subcodes – copies all subcodes so that they can be pasted into another code.

Copy coded segments – copies all coded segments for the code, so that they can be copied into a different code. After choosing this option, right-click on the code that you would like to paste these coded segments into and select **Insert coded segments from ...**

Move coded segments – cuts the coded segments from the current code, so you can insert them in a different code. After selecting this option, right-click on the code where you want to move the coded segments to and select **Move coded segments from ...** A window will appear confirming that you really wish to move the codes, and after you confirm this, the coded segments are moved.

Overview of coded segments – opens a table with all coded segments coded with the current code, offering an overview of the text and image segments assigned with the code.

Overview of linked memos – opens a list of all memos that are linked to the current code.

Overview of code variables – opens a table with all code variables of the code and its subcodes.

Overview of documents – opens a table with all of the documents in which the code was used.

Import code variables – allows import of code variables for subcodes of the code.

New code – creates a new subcode for the current code.

Sort codes – sorts all subcodes of the current code in alphabetical order.

Add code to code favorites – adds the current code to the list of code favorites.

2.8 Context Menus and Toolbars in “Retrieved Segments”

2.8.1 Toolbar

The following commonly-used functions are available in the toolbar at the top of the “Retrieved Segments” window:



Change to table view – switches from list view to table view and back.



Print retrieved segments – prints segments along with indications of their origins.



Show as Excel table – opens the retrieved segments in an Excel document in XLS/X.



Show as HTML table – opens the retrieved segments in your standard browser.



Export retrieved segments – The segments can be exported in RTF (text format), or as tables in XLS or HTML format. Memos attached to coded segments, as well as tooltip variables, can be included in the exported material.



Overview of retrieved segments – shows overview of all retrieved segments in table form. Overview will be displayed in a new window.



Code retrieved segments – all coded segments that are currently in the “Retrieved Segments” can be coded additionally with an existing code.



Code retrieved segments with a new code – all coded segments that are currently in the “Retrieved Segments” can be coded additionally with a new code.



Context search – allowing for searches within the retrieved segments.



Undock window



Maximize window



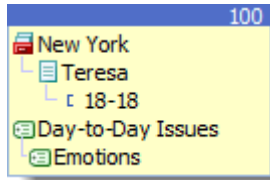
Hide window

2.8.2 Context Menu

All coded segments in the activated documents that were coded with the activated codes are shown in the “Retrieved Segments” window.



To the left of each of these segments is a yellow info box with information about that segment. The info boxes tell you in which document group, document, and paragraph the segment is found and which code was assigned to it.

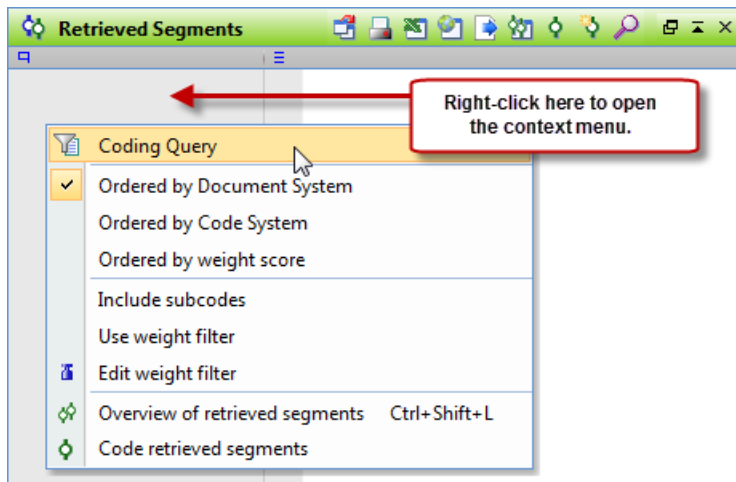


Clicking on the yellow info box opens the original document in the "Document Browser" and highlights the document segment

If you right-click in the **gray area** on the left side of the "Retrieved Segments" window (not on an info box), a context menu appears.

This menu offers access to a number of different features that affect the way segments are received in this window. You can, for example, set how retrieved segments should be sorted or how activated codes are linked to each other.

The retrieved segments can be sorted according to the document in which they are found (according to the order of documents in the "Document System"), according to the code they are coded with (according to the order of codes in the "Code System"), or according to the weight assigned to each coded segment.



Context menu in the gray area of the "Retrieved Segments" window

Here are all the available functions in the context menu:

Coding Query – opens the Coding Query tool, which proposes numerous retrieval options.

Ordered by Document System – the segments in the "Retrieved Segments" window will be sorted in order of the "Document System."

Ordered by Code System – the segments in the “Retrieved Segments” window will be sorted in order of the “Code System.”

Ordered by weight score – sorts retrieved segments according to the weight assigned to them.

Include subcodes – automatically includes all subcodes in the retrieval for each code activated in the “Code System.”

Use weight filter – displays only those retrieved segments that are within a certain weight range.

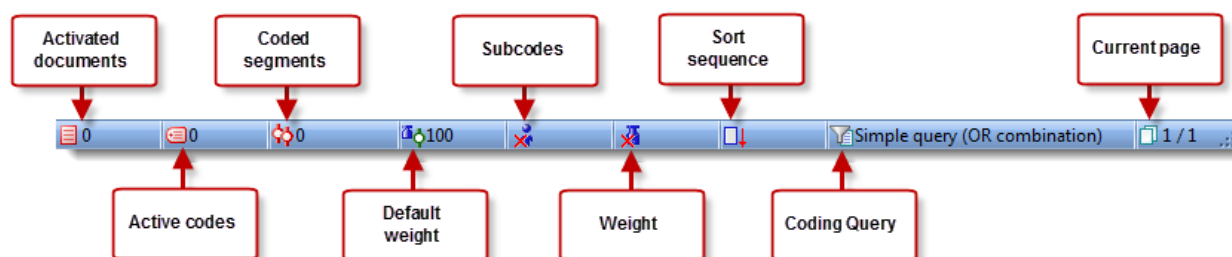
Edit weight filter – opens a window where you can change the range of weight scores included in the “Retrieved Segments” window. The default weight assigned to each coded segment can be set by clicking on **Options** in the Project drop-down menu.

Overview of retrieved segments – calls up a table view of retrieved segments, which is displayed in a new window.

Code retrieved segments – all coded segments that currently appear in the “Retrieved Segments” window can be additionally coded with an existing code.


2.9 The Status Bar


At the bottom of the MAXQDA screen, you will see a status bar that includes information about various aspects of your current workspace (e.g. the number of activated documents and codes, the number of retrieved segments, the current retrieval option, etc.)





Status bar at the bottom of the MAXQDA screen


 **Activated Documents** – number of currently activated documents


 **Active codes** – number of currently activated codes


 **Coded segments** – number of coded segments, which are displayed in the “Retrieved Segments” window based on the current retrieval.


 **Default weight** – displays the current standard weight, with which each new coded segment is provided. The icon is interactive! **Double-click the icon** to customize the standard weight.

 **Subcodes** – displays the current status of the retrieval: If an X is displayed on the icon, the subcodes are not included in the retrieval; if the X is not displayed, the subcodes are included. The icon is interactive! **Double-click the icon** in order to determine whether subcodes will be included or not.

 **Weight** – displays the current status of the weight filter: If an X is displayed on the icon, the weight filter is switched off and all segments will appear in the “Retrieved Segments” window, regardless of their weight. If no X appears on the icon, the weight filter is active and only the segments which satisfy the conditions of the filter will appear. The icon is interactive! **Double-click the icon** to turn the weight filter on and off.

 **Sort sequence** – shows the sequence of the coded segments in the “Retrieved Segments” window, which can be sorted by Document System, Code System, or weight. The icon is interactive! **Double-click the icon** to toggle between the various sorting options.

 **Coding Query** – displays the selected mode of retrieval, such as “Simple Query” or “Overlapping.” The icon is interactive! **Double-click the icon** to call up the Query Tool for coding.

 **Current page** – PDF documents: Displays the page number of the current view in the “Document Browser” along with the total number of pages. Other document types: Page number is set to “1.” The icon is interactive! **Double-click the icon** to jump to a selected page number.

3 Use of Tables in MAXQDA

3.1 The Toolbar in Tables

There are many situations in MAXQDA where tables are used to display information, and they are similar in how they can be worked with, which is similar to the handling of tables in Excel. All table overviews have a toolbar offering quick access to frequently-used functions.

The overviews include various icons depending on their function and purpose. The following icons are found in some of these toolbars:



Excel table – shows the current table in an Excel document. This does not happen within MAXQDA, but can be printed out or saved as a separate file.



HTML table – shows the current table in an HTML document. This can also be saved or printed out, but is no longer connected to your MAXQDA project.



Export – saves the content of the table in XLS/X, HTML or TXT (tab delimited) format in a specified location on your computer and opens the file. This exported file is also no longer connected to your project file.



Close window

3.2 Customizing Tables

Tables in MAXQDA can be customized as in Excel or other similar spreadsheet programs. For the following example, we'll use the table view of the document variables in MAXQDA:



Document group	Document name	Creation date	Number of coded segments	Number of memos	Gender
New York	Teresa	11.12.2003 20:06	4	1	Female
New York	Joanna	11.12.2003 20:06	24	0	Female
New York	Jon	11.12.2003 20:06	36	0	Male
New York	Kim	11.12.2003 20:06	29	0	Female
New York	Milly	11.12.2003 20:06	3	2	Female
New York	Mary	11.12.2003 20:08	34	2	Female
New York	George	11.12.2003 20:06	38	3	Male

Table view of an example project's document variables

The heading of each column has the name of each variable, although the standard MAXQDA system fields are written in a different font color:

- ☐ **Document group** – the name of the Document group in which the document is found
- ☐ **Document name** – the name of the document
- ☐ **Creation date** – the date on which the document was imported
- ☐ **Author** – the user that was logged in when the document was imported
- ☐ **Bytes** – the size of the document in bytes
- ☐ **Number of coded segments** – the number of coded segments in the document
- ☐ **Number of memos** – the number of memos in the document

The width of each column can be changed by clicking and dragging the border between the columns. **Double-clicking on the column header** border to the right of the column resizes the column to its optimal size, so that the contents of each row can be fully seen.

Document group	Document name	Creation date	Gender	Age 19	Race Ethnicity
New York	Teresa	11.12.2003 20:06	Female	Over 25	White
New York	Joanna	11.12.2003 20:06	Female	20 - 25	White
New York	Jon	11.12.2003 20:06	Male	19 or less	White
New York	Kim	11.12.2003 20:06	Female	19 or less	Non-White
New York	Milly	11.12.2003 20:06	Female	Over 25	Non-White
New York	Mary	11.12.2003 20:08	Female	19 or less	White

Annotations in the image:

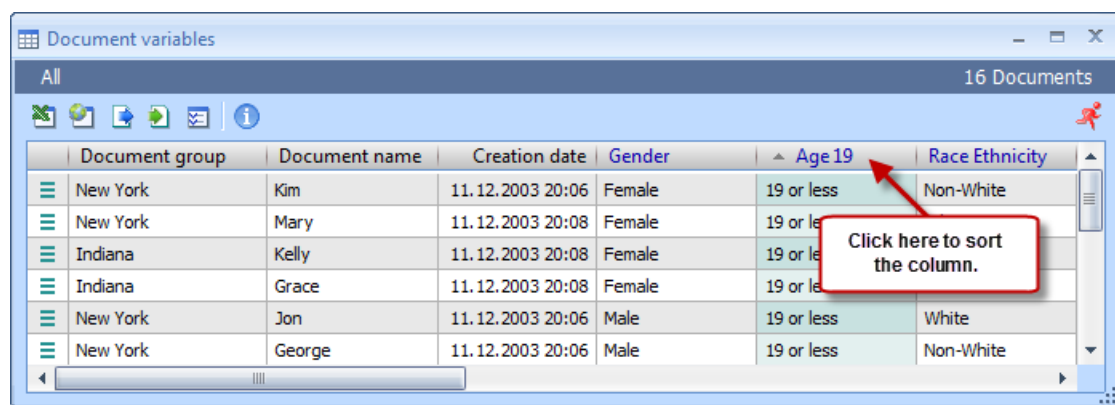
- Click and drag to adjust column width. (pointing to the border between Document name and Creation date)
- Double-click to optimize column width. (pointing to the border between Creation date and Gender)
- Click and drag to adjust column position. (pointing to the border between Age 19 and Race Ethnicity)

Adjust column width and position

It is also very easy to change the order of the columns. You just need to **click on a column header** and drag it to the place you wish to have it.

By **right-clicking on a column header**, the context menu appears for that particular column. This includes various options, including the option to hide the column or search within the column. The **Select field option** opens a window where you can select which of the columns should be viewed in the standard view.

Tables can be sorted very easily. Just click on the column header of the column that you want to sort the rows by.



Document group	Document name	Creation date	Gender	Age 19	Race Ethnicity
New York	Kim	11.12.2003 20:06	Female	19 or less	Non-White
New York	Mary	11.12.2003 20:08	Female	19 or less	Non-White
Indiana	Kelly	11.12.2003 20:08	Female	19 or less	Non-White
Indiana	Grace	11.12.2003 20:08	Female	19 or less	Non-White
New York	Jon	11.12.2003 20:06	Male	19 or less	White
New York	George	11.12.2003 20:06	Male	19 or less	Non-White

Sorting a table

Tables can be sorted alphabetically or in reverse alphabetical order. Clicking once on the column header sorts it alphabetically; clicking a second time sorts it in reverse. A small triangle appears in the column header of the column that is currently being used to sort the table and whether it is sorted alphabetically or in reverse alphabetical order.

Tables in MAXQDA contain both editable (blue) and un-editable (black) columns. The system variables, for example, cannot be edited. You would therefore need to change the document name in the "Document System" and change the document group of a document by dragging it to a different document group in the "Document System."

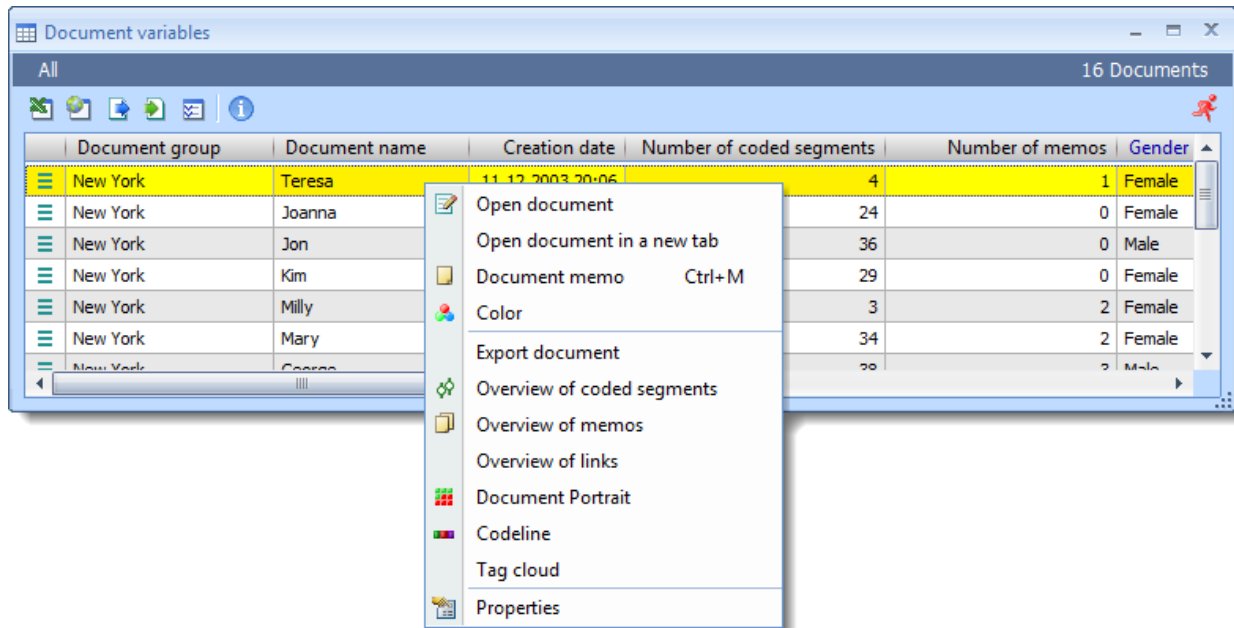
In the editable cells of the table, you can enter or change a value by double-clicking on the cell and then typing the value.

The table contents can also be selected and copied into the Windows clipboard. Selection is done as in Excel or Windows Explorer – a single cell can be selected by simply clicking on it, and additional cells can be added to the selection by holding the Ctrl or Shift key and clicking on the cells. The selected sections of the tables in MAXQDA are colored differently than the sections not selected (usually yellow).

You can also search for certain values within each column of tables in MAXQDA. You only need to **right-click on the column** in which you want to search and select **Search**. In string fields, the search will start with the initial character. If you wish to search for a certain word or phrase that does not have to appear at the beginning of the value, you can use the asterisk (*) at the beginning of your search.



All overviews in MAXQDA have context menus that can be called up by using the right mouse button. The number of options that appear in the context menu depends on the overview. It is usually possible to delete a selection (e.g. a coded segment or memo). In the “Overview of coded segments,” you also have the option to change the weight score of each segment. The most options are available in the document variables table.



Context menu in the document variables table

3.3 The split “Overview of coded segments” Table

The “Overview of coded segments” is different from other tables in that it is split into two sections. The lower section is just like other tables, while the upper section serves as a detailed view. The upper section displays the coded segment that is selected in the lower section.

4 Documents and the “Document Browser”

4.1 General Information about Documents in MAXQDA

With MAXQDA you can

- ☐ import all types of DOC/X, RTF and TXT files without using any special formatting options unless you want to use certain MAXQDA functions or achieve a specific document appearance,
- ☐ import all DOC/X and RTF documents with a certain structure (e.g. forms),
- ☐ import PDF documents,
- ☐ import XLS/X table documents,
- ☐ import pictures and graphics in JPG, GIF, TIF and PNG format,
- ☐ manage audio and video files in order to analyze them and the transcripts at the same time or to code them yourself,
- ☐ create new text or table documents and input the data yourself,
- ☐ create new blank documents that are freely editable by typing or pasting content from the Windows clipboard.

Important: DOC/X documents can only be imported in MAXQDA if you have Microsoft Office (for Windows!) 2003 or later installed on your computer. Otherwise, the documents can be saved in RTF format and then be imported into MAXQDA.

All text and table documents imported into MAXQDA can be edited in the “Document Browser.” This means you have the option of fixing typos, deleting or adding text, etc. This is also possible once you have done some coding and/or memoing. This means you don’t have to have a completed document to start your coding. PDFs, images, and audio/video files cannot be edited in MAXQDA.

Usually the documents in MAXQDA have been imported, which means the original document remains at its original location. You can edit, move, or delete this original document without affecting the imported version. MAXQDA has complete control over the imported document. This is a significant advantage over many other QDA programs, which only link to external documents that could be changed or deleted, thereby causing problems for your research project.

4.2 External Files

In general, all documents will be imported into the MAXQDA project file, meaning the original file remains in place. You can modify or delete the original file without affecting the



imported document in MAXQDA. This concept holds a great advantage over other QDA software, in which the primary files are constantly at risk of being modified “from the outside.” In MAXQDA it is possible for you to connect audio or video files to their transcriptions and import PDF and image files, which means that the “one project = one file” concept is not always optimal. If you were working with many audio/video, image, or PDF files, for example, your project file would quickly become very large, which would slow down processes in MAXQDA and make it almost impossible to move the file from one computer to another.

For this reason, MAXQDA does not save imported PDF and image files that are larger than a certain size (default 5 MB) in the project file. Instead it is saved in an external folder. You won’t notice any difference in the way you work with the documents in MAXQDA; the icons in the “Document Browser” look just like they would if the documents were saved in the project file.

The default maximum size for PDFs and image files can be changed under **Options** in the **Project** drop-down menu. You can also set the location where external files are to be saved. If you do not change it, the default location for all external files will be as follows:

- ☐ for portable license installations: [installed folder]\MAXQDA_Externals
- ☐ for normal license installations: [My documents]\MAXQDA_Externals

Note: All your external documents will be saved in a global external folder. If you wish to save externals in a project-specific folder, you should create a folder for the designated project. However, it can be useful to work with a global external folder from which external files can be accessed by multiple MAXQDA project files. For this reason, when you delete a document, the associated media file will not be deleted (without prompting), as the file could still be linked to other documents.

What actually happens when a PDF or image file larger than the set maximum size is imported into the “Document System”?

1. The document is added to the list in the “Document System” just as it would be if it were a smaller file.
2. The document is visualized with the PDF or image icon as is the case with smaller files.
3. The document is copied into the “MAXQDA_Externals” folder unless you have chosen to have external files saved elsewhere. The original document remains in its original location.

It is important to remember that unless you change the default folder for external files, this folder will hold externals for all projects. You will only have a separate folder for the externals of a certain project if you change the external folder in the **Options** window. It often makes sense to use the same folder for all of your projects, so that several projects can access the same external file. It is for this reason that audio/video files are not deleted from the external files folder when the linked document is deleted; this audio/video file could also be linked to other documents.



What happens to a document in the “Code System” when it is linked to a media (audio/video) file?

1. The location of the original file is saved in the Properties menu of the document.
2. The original media file is never saved as part of MAXQDA project file, even if it is smaller than the maximum file size.
3. The media file is copied into the “MAXQDA_Externals” folder or whatever folder you have chosen for this purpose. The original document remains in its original location.
4. When importing a text file with timestamps, MAXQDA also looks through the file for timestamps, creates a List of timestamps synchronizes the text with the audio/video file.

Which file is actually used – the original or the copy?

MAXQDA always looks for the original first – it looks for the file based on the path that is saved in the properties menu of the document. If the original is not found, the copy of the file in the external files folder is used. This file is then loaded. In other words, the original file can be moved or deleted without it affecting the proper functioning of MAXQDA.

Be careful when using the same file name for different files!

It is possible to import several documents with the same name into the “Document System” (e.g. three files named “Interview 1”). This is only a problem if the file is larger than the set maximum and must be saved in the external files folder. When the most recently-imported file is saved, it automatically replaces the older file with the same exact name.

What happens when you change the external files folder for a project that already has external files saved in the default external files folder?

In this case, MAXQDA will ask you if you would like to move the documents from the previous location to the new external files folder. The documents are only moved once you confirm this. Since this action changes the global setting for all projects, all files are moved from the former external files folder to the new.

What happens if a project with external files is passed on to a different computer/MAXQDA installation?

In order to send the entire project, including the external files, follow these steps

1. Send the MAXQDA (MX5) project file.
2. Bundle all external files with the appropriate function in the **Project** drop-down menu. MAXQDA then compresses all external files associated with the current project into a Zip archive, which is named after your project (e.g. “Projectname.mx5.zip”) and saved in the same place as your project file.
3. Send this newly created Zip file.



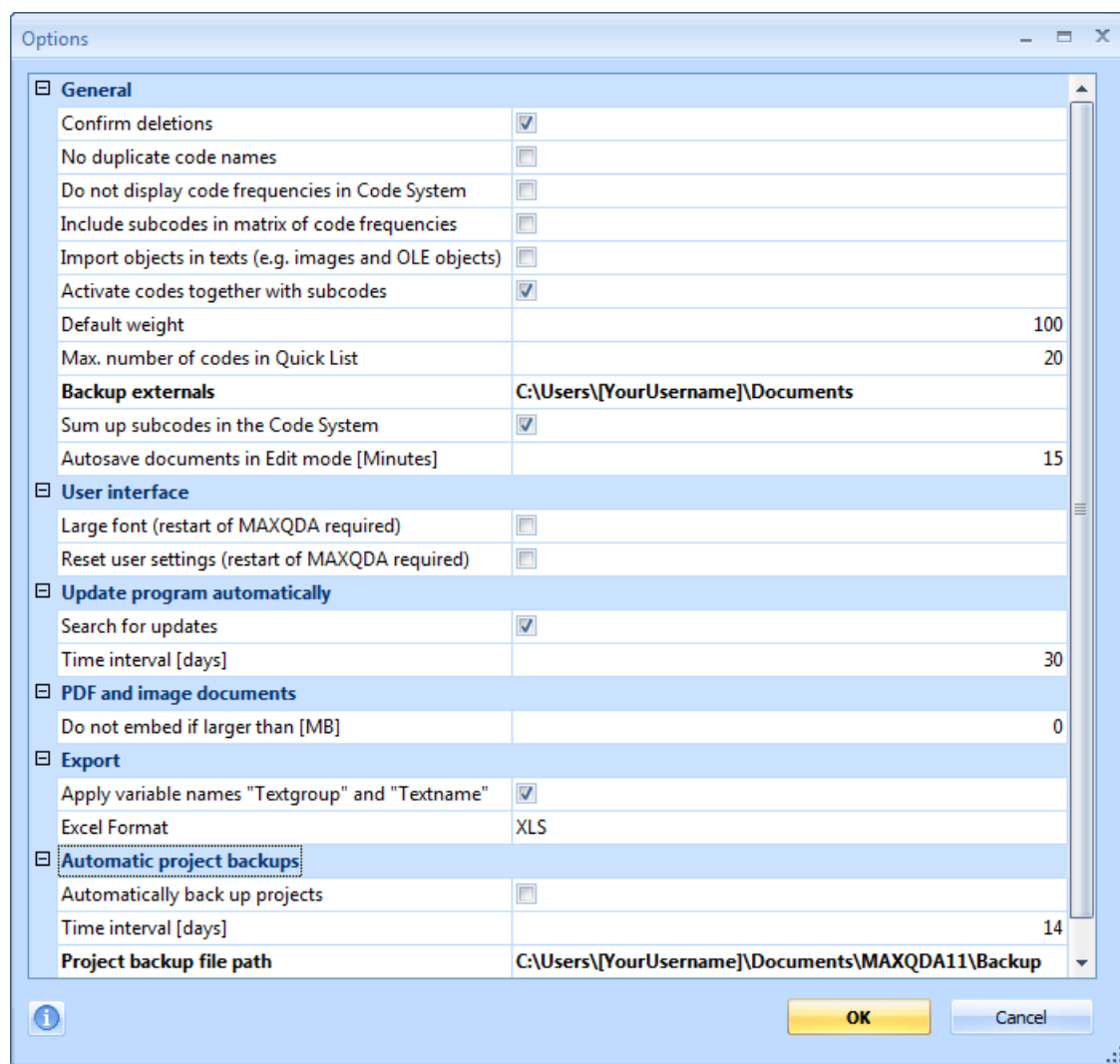
Procedure on receiving end:

4. Open the MX5 project file.
5. Choose **Unpack bundle files** from the **Project** drop-down menu and select the **Zip archive** in the Windows dialog box that appears. MAXQDA then unpacks the archive and moves the linked files to your external files folder.

If a document is linked to an audio or video file, the original location of the audio/video file will be listed in the document properties. If a document with this name isn't found in the appropriate folder, the copy in the external files folder will be used.

Careful!

The changes you make in the options menu in the **Project** drop-down menu are global, meaning they change the settings for all of your projects. If you want to use a different external file folder for each of your projects, you have to always remember to change the options every time you work on a different project.



Global options for MAXQDA

4.3 Unicode

MAXQDA was the first QDA software that completely supported Unicode, meaning you can not only import and analyze documents in any language (from Japanese to Arabic), but you can also create your codes, variables, document names, etc. in these languages. This Unicode functionality is available in every MAXQDA function

Different countries, different languages, different alphabets – this is no problem as long as one does research in the Americas or Europe. But what happens if you want to analyze Russian or Mandarin? With the import of RTF files in MAXQDA 1, it was already possible to analyze texts in other languages, but that was only the case in the “Document Browser,” meaning the imported text could be in any language, but the codes could only be created using Western characters. This meant text searches and in-vivo coding were not possible. MAXQDA 2 was then released with additional support for certain languages, so that codes



and searches could include Arabic, Greek, and Cyrillic languages. The “Code System” could then handle characters from these languages.

Then with MAXQDA 2007, the software was able to handle Unicode. Unicode is an international standard with the goal of standardizing all known languages and characters. This makes it possible to work with various languages in the same document. One sentence can be in English, the next in Mandarin, and the next in Arabic. This is possible because Unicode (unlike more common computer character systems like ASCII or ISO Latin) can deal with more than 128 or 256 different characters. In MAXQDA, even codes and variable names can be created with “foreign” characters, and searches and in-vivo coding are possible with any language.

4.4 General Information about RTF and DOC/X Formats

Documents can also be created within MAXQDA, but usually it is easier to work with a document in a word processor or text editor and then import it. It does not matter which word processor you use as long as you can save the document in RTF or DOC/X format, which is almost always the case.

There are almost no limits to the options available in RTF and DOC/X format when creating a document. When transcribing an audio or video file or typing up field notes, it is necessary to develop a transcription system or set of transcription rules.

One option is the simple Hoffman-Riem system, which can be used by anyone looking for any easy set of rules. It’s translated version is below.

Characters	Meaning
..	short pause
...	medium pause
....	long pause
.....	omission
/uh/	filler word
/eh/	
((action))	nonverbal communication, e.g. ((shakes head))
((smiling))	nonverbal cues in combination with speech
<u>very</u>	noticeable emphasis or rise in volume
v e r y	drawn out speech
()	indecipherable
(terrifying?)	not clear, but best guess

RTF and DOC/X formats allow for all sorts of transcription rules so that it isn't necessary to preformat things for import into MAXQDA. If you wish to handle certain sections of text as a single unit, though, it makes sense to have them together in the same paragraph. A new paragraph number is inserted automatically in MAXQDA after each hard return. It is also easier then to automatically code these paragraphs in MAXQDA.

Here are the things to remember when importing a text document:

- ☐ All formatting aspects – like bold, italics, etc. – are carried over to MAXQDA.
- ☐ All fonts and text sizes are carried over.
- ☐ Paragraph formatting (e.g. right-justified) is also carried over although the spacing between paragraphs does not necessarily stay the same.
- ☐ The text can contain tables, pictures, graphics, etc.
- ☐ MAXQDA supports Windows OLE, which means that audio file, PowerPoint slides, hyperlinks, and video files can be embedded in the file. Double-clicking on these objects in MAXQDA will open the appropriate program to view or play the file, assuming the program is installed on the computer. If certain objects are imported or simply linked to depends on your settings in the **Options** window in the **Project** drop-down menu.

The editing of tables within text documents is worth mentioning, as tables with more than two columns were difficult to work with in older versions of MAXQDA. Since version 10, though, this is no longer a problem; you can now easily edit and even code cells in tables that are embedded in text documents. The only limitation is that the size of the table can no longer be changed once it has been imported.

4.5 Objects Embedded in Text

MAXQDA supports Windows OLE (Object Linking and Embedding), which means that audio file, PowerPoint slides, hyperlinks, and video files can be embedded in an RTF or DOC/X file. The connection between the text document and these objects remains in effect even after import into MAXQDA.

There are two ways to deal with these embedded objects, which will be explained with the example of a PowerPoint slide:

The first variation works as follows:

Highlight a PowerPoint slide (e.g. from the sort view) and copy it into the Windows clipboard. You can then paste it into a MAXQDA document by pressing **Ctrl+V**; the slide can then be viewed in the document in the “Document Browser.” By double-clicking on the slide, you will open it in PowerPoint, where you have the option of editing the slide. You can also code the slide, but MAXQDA handles it as a single object, so lines of text in the slide cannot be coded separately. Depending on the type and size of the object, it may take up quite a bit of memory to code it, so only code such objects if it is important for your analysis.

Second variation:



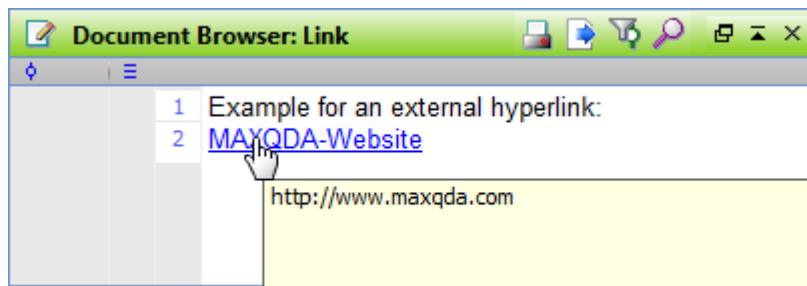
Here there is only a link created for the embedded objection. These work like hyperlinks in a web browser; you will be able to tell that a link exists, because the text will be blue and underlined. By hovering the mouse over the link, you can see the name of file linked to that spot. Clicking on the link opens the file in the appropriate program, assuming that program is installed on the program you are working with (e.g. PPT files are opened in PowerPoint, audio files in a media player, etc.). The program that will be opened depends on the computer's settings.

With the second variation, it makes absolutely no difference how big the linked file is. With the first variation, though, it is important to be aware of the object size, so the project file doesn't become too large. MAXQDA is first and foremost designed for analyzing text documents, so it is not recommended that you use it as a photo archive or as a multimedia program.

4.6 Hyperlinks Embedded in Texts

Thanks to the expansion of the internet, everyone knows what a link and what happens when you click on one. Documents imported into MAXQDA can also have hyperlinks in them. Clicking on the link in MAXQDA brings up the webpage or HTML file in the default browser.

Hyperlinks are always made up of two parts: the visualization (whether it be a button, picture, or text) and the URL, which is the information about the location of the file, which may be a WWW address. By hovering over the link, you can see the location/URL in the tooltip that appears. Usually, this is not otherwise visible.

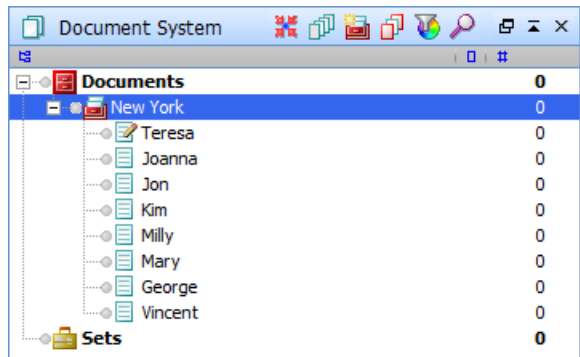


Hyperlink in a text

If you want to work in MAXQDA with pictures or other objects that require a lot of memory, it is recommended that you don't import the pictures into the project file, but just link to them. The links can still be code and called up in the "Retrieved Segments" window, but they don't affect the size of the project file. Starting with MAXQDA, it is now possible to import pictures into the "Document System" and save them either in the project file or externally as external files. Limits for the file size of imported objects are set under **Projects > Options**.

4.7 Importing Documents into MAXQDA

Importing files into MAXQDA is simple and intuitive: you can simply highlight the documents in Windows Explorer and drag them with the mouse into the “Document System.” They will then be inserted on the upper level of the “Document System” hierarchy, directly under the “Documents” icon. In the following screenshot, you can see that eight documents (Teresa, Joanna, Jon, etc.) have been imported.



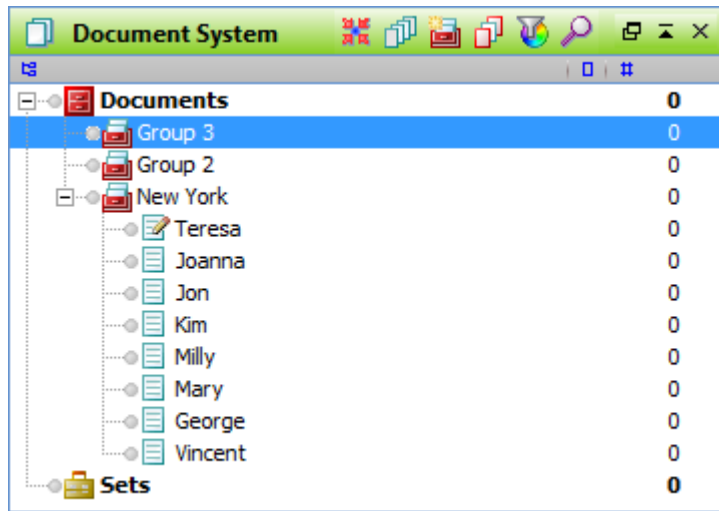
Visualization of eight imported documents in the “Document System”

By moving the mouse over a document name, you will see a tooltip that gives you information about the document, including its size, the author (user logged in at the time of import), the date of import, and the number of coded segments and memos in the document.

Careful: If a file is open in another program (e.g. Word), it will not be possible to import it into MAXQDA. Instead, a box will appear informing you that the import was unsuccessful. Simply close the document in the other program and try the import again.

Ordering the documents in document groups

All you have to do is drag documents into the “Document System,” and you’re ready to start your analysis of those documents. Most people don’t start with the analysis immediately, though, and prefer to organize the documents in folders, as they might do on their computer’s hard drive. Rather than using folders, MAXQDA uses document groups. They work just like folders do in Windows Explorer – you can name them and drag documents into them. The number of document groups is not limited in MAXQDA; you can make as many of them as you want. When you create a new document group, it will automatically be named “Group 2,” “Group 3,” etc.




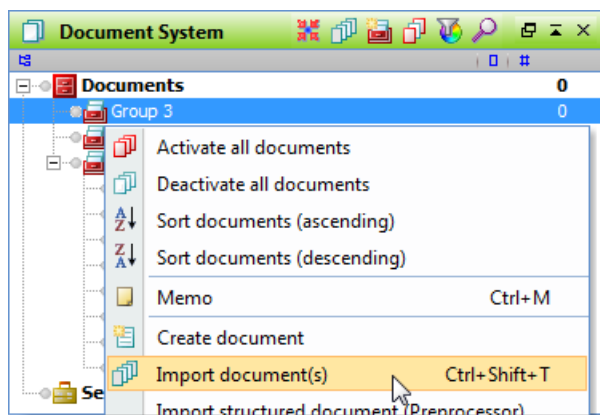
Newly-created document groups are automatically named "Group 1," "Group 2," etc.

Import of documents into document groups can also be done via drag and drop. You just need to highlight the documents in Windows Explorer and drag them onto the document group name. You'll see that the documents are imported into the document group when the file names appear under the document group icon and name.

Tip: To import an entire document folder into MAXQDA, drag the folder from Windows Explorer into the "Document System" window. MAXQDA will then create a new document group with the same name as the Windows folder, into which it will import all MAXQDA importable documents.

In addition to Drag & Drop, documents can be imported into MAXQDA in the following ways:

- ☐ Select a Document Group, then click the **Import document(s)** button .
- ☐ or you can also import documents by using the keyboard shortcuts **Shift+Ctrl+T** (import to the upper level) or **Alt+T** (import to the selected document group).
- ☐ or you can right-click on the **document group** that you want to hold the imported documents and select **Import document(s)** from the context menu that appears.



Importing a document via the context menu

A Windows dialog box will appear that allows you to select the documents that you would like to import.

Newly-imported documents are put at the top of the list of documents in the document group. They are given the same name as the original file, but you have the option of re-naming them at any point. If you want to import several files at once into the same document group, you can select more than one document by holding the Ctrl button while clicking on the documents to import.

The order of document groups in the “Document System” can also be changed at any time. You simply need to **click on the document group icon** and drag it to the location you would like to have it. In other words, it is not necessary to know how you will organize all of your documents when you import them.

Note: In MAXQDA, it is not absolutely necessary that you create at least one document group. MAXQDA works with document groups similar to the way Windows Explorer works with folders. You can create document groups/folders to better organize your documents, but each document doesn't have to be put in one. Documents can be moved freely from one document group to another without having it affect the document in any way.

4.8 Opening and Editing Documents

You will know that a document has been imported when its name appears in the “Document System.” To view that document, you can either:

- ☐ **double-click** on the document in the “Document System,” or
- ☐ **right-click** on the document in the “Document System” and choose **Open document**.

The document is then opened in the “Document Browser,” and the icon next to the name of the document in the “Document System” changes from a sheet of paper to a sheet of paper with a pencil on it.

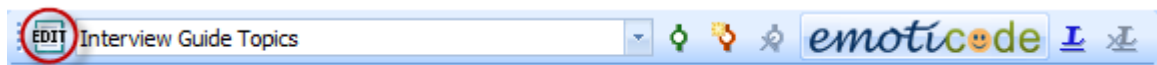


Symbol in the “Document System” for a document open in the “Document Browser”

You can now begin to work with the document in the “Document Browser.” You can code document or picture segments, attach memos, link segments, insert external links, edit text, or add new text. There are two different modes for working on a document:

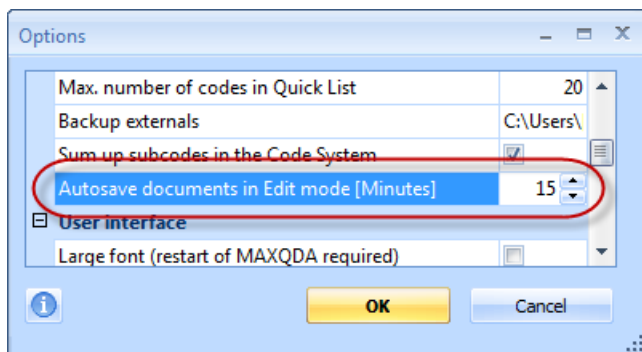
- ☐ “Code Mode” – allows you to code segments of texts or images, create internal or external links, and write memos.
- ☐ “Edit Mode” – allows you to edit text in documents imported from RTF or DOC/X format. You can type new content, fix typos, and delete text.

Code Mode is active by default when a document is opened in the “Document Browser.” Click the Edit Mode button to switch to Edit Mode. When working in Edit Mode, many features you will be familiar with from word processing programs are available. You can choose the font type, size, and color as well as formatting characteristics such as bold, italics, or underline.




Button for turning Edit Mode on and off

Note: Documents that are opened in Edit mode are automatically cached on demand. You can set the time interval under **Project > Options** (by default, the open document will be saved every 15 minutes). The edited text will be saved automatically when you switch back to coding mode or close MAXQDA.

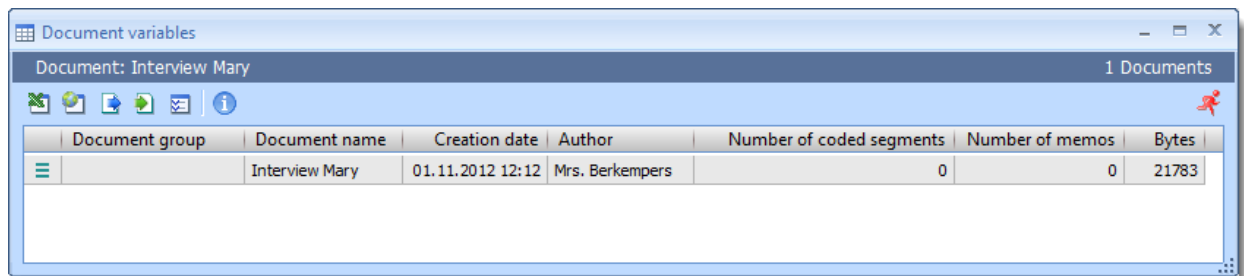


Set interval at which project will be automatically saved in Edit Mode.

When working in Edit Mode, you can undo action by either clicking the Undo button  or selecting the command **Undo** from the **Edit drop-down menu**. If you, for instance, have deleted a word or a paragraph, simply click the **Undo** button and the deleted text will appear again. If you click the **Undo All** option from the **Edit menu**, all changes that have been made since starting in Edit Mode are canceled, and the text looks exactly the same as when you switched into Edit Mode.

Important: The undo function is only available when you are working in Edit Mode. As soon as you go back to Code Mode or open another document, all changes that you have made in the current document are saved and can’t be undone.

When importing a document, MAXQDA automatically creates a number of internal variables (formerly known as attributes) that are attached to the document. To see these variables, right-click the document and select **Overview of variables** from the context menu. These internal variables include the size of the document (in bytes), the date and time it was imported, and the user logged in at the time of import (author). The number of memos and coded segments in each document is also kept track of as a variable, although new documents obviously start with zero.



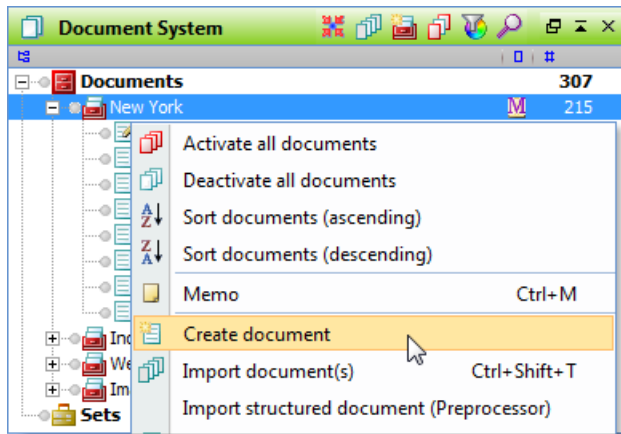
Document group	Document name	Creation date	Author	Number of coded segments	Number of memos	Bytes
	Interview Mary	01.11.2012 12:12	Mrs. Berkempers	0	0	21783

“Overview of variables” for a newly-imported document

This information will also appear as a tooltip when you move the cursor over a document name and hold it there for a moment.

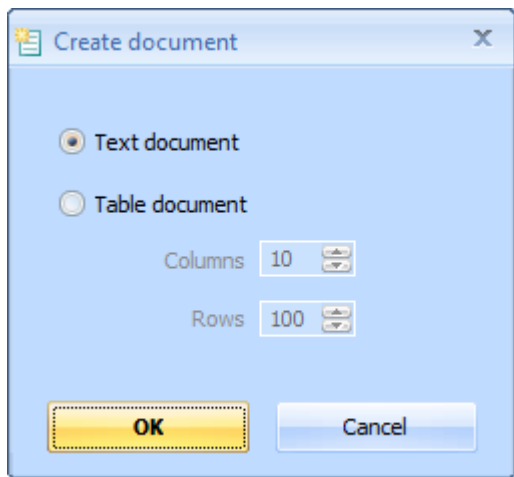
4.9 Creating a New Document in MAXQDA

To create a new document without the help of a word processor, you should start by deciding where you want the document to be placed. You can then right-click on the document group where you want the document to be created and select **Create document**. Alternatively, you can call up this function from the menu **Documents > Create document**, or from the “Document System” with the keyboard shortcut **Ctrl+Shift**.



Creating a new document via the context menu of a document group

The following dialog window will appear. Click **OK** to confirm. The option “Text document” is set by default.



Creating a text document in MAXQDA

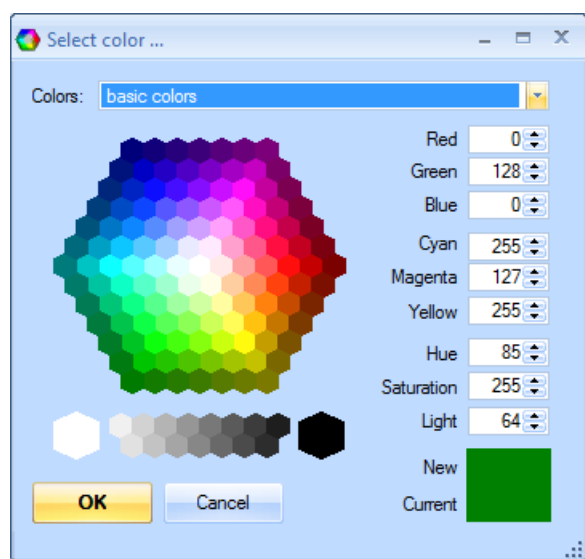
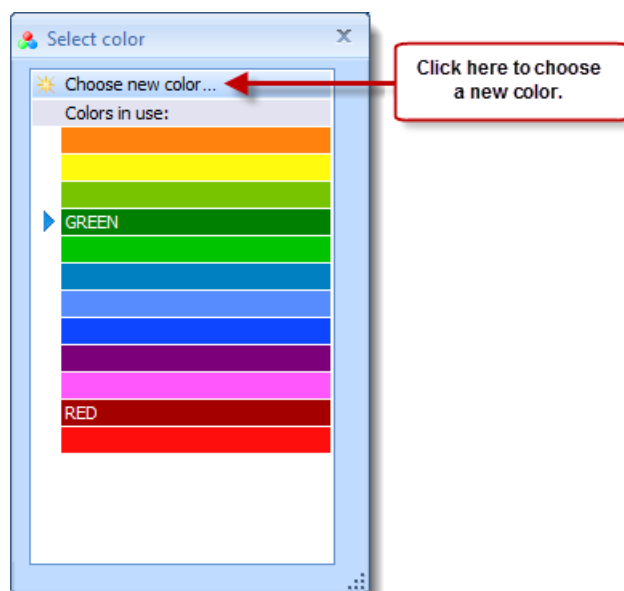
The new document automatically starts with a name like “Document nn,” where nn is a consecutive number. Of course you can change the name later on. After creating a new document, it is automatically opened in the “Document Browser” and put in Edit Mode, so you can start to type or paste text from another program into it.

There is no need to save your new document. As is the case when editing an imported document, everything is saved in the new document once you leave Edit Mode, view a different document in the “Document Browser,” or close MAXQDA.

4.10 Assigning Colors to Documents

You have the option of assigning a color to each of your documents. This color is then used in all tables and visualizations, including in MAXMaps.

To assign a color, right-click on the document and select **Color** from the context menu that appears. A dialog window appears which lists the colors used in the project. Standard colors, (i.e. for color coding) are indicated by name ("GREEN").



Selecting a color

There is an almost endless number of colors that you can pick from for your documents, and you can theoretically mix your own by entering values into the fields on the right side of the window, although it makes sense to limit the number of colors you use in a single project.

The document colors are usually listed in the first column of tables in MAXQDA, which means you can then use them as sort criteria. By clicking on the column header, you will sort that column, grouping together those documents with the same assigned color.



4.11 Creating Document Sets

MAXQDA makes it possible for you to create and save a temporary grouping of documents. While each document can only be in one document group, it can be in as many document sets as you wish, because document sets are only made up of shortcuts to the documents. In other words, a document set can be deleted without it having any effect on the document. If that same document were deleted from a document group, however, it would be deleted from the project along with all of its memos, coded segments, links, etc.

Document sets are created via activation. You can activate a document by **right-clicking on it** and selecting **Activate** from the context menu. You can tell that a document has been activated, because it turns red and a red arrow appear just to the left of the document icon.

Tip: For quick, easy activation, hold the down Ctrl key and left-click on the selected documents. In this way, you can also activate an entire document set.

After activating all the documents that you want to create a set out of, you can create that set as follows:

1. Right-click on the word **Document sets** at the bottom of the “Document System.”
2. Select **New set**.

MAXQDA then creates a new set with the name “Set 1” and adds all activated documents to this set. You can click on the name with the right mouse button and choose another that is more appropriate. Document sets are manipulated like document groups; you can activate all the documents in a document set at the same time and use all the options for working with document groups (Codes, Memos, Variables, etc.).

Individual documents can be deleted from a document set or placed in another document set; the easiest way is by using the drag-and-drop function.

When you want to analyze a certain selection of documents, using a document set is a very practical method, allowing you to avoid a more complicated selection procedure. Forming a document set is also an easy way to save the result of a complex activation process.

4.12 Renaming and Deleting Documents

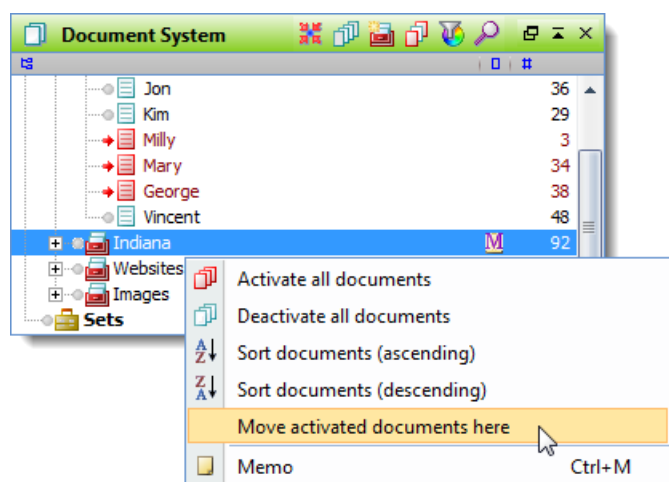
Document groups, document sets, and individual documents can be renamed at any point. Simply right-click on any of these objects and select **Rename** from the context menu. It is not recommended that you have more than one document with the same name. It is possible, but it can be very confusing.

Right-clicking on documents opens the context menu, giving you the option **Delete document**, which also deletes the coded segments, memos, and links associated with it. It

is not possible to undo such a deletion, which is why you must always confirm the action. You can also delete document groups and document sets. Be aware, however, that deleting a document group also deletes all documents that are in it.

4.13 Move and Sort Documents

You can change the order of the documents in the “Document System” as desired. To do so, click and drag the document into the desired position. To change the order of multiple documents at the same time, click on the selected documents while holding down the Ctrl key to activate them. Next, right-click on the document group and select **Move activated documents here**.



Move all activated documents at once to a document group

To sort documents in a document group, right-click on the document group and select **Sort documents**. There are two options with the same text, but the icons next to them are different. The first indicates that the sorting will be done alphabetically (A to Z), and the second indicates the sorting will be done in reverse alphabetical order (Z to A).

To sort the document groups by name, simply right-click on the word **Documents** at the top of your “Document System” and select the appropriate **Sort document groups** option.

Tip: Researchers often work with document names that include numbers (e.g. Interview 1, Interview 2, etc.). If you are going to have more than 10 documents, it is recommended that you make each single digit number into a two-digit number (Interview 01, Interview 02, etc.). When sorting the documents, you will then have them in the correct order. Otherwise Interview 20 would come before Interview 3. If you are working with more than 100 documents, all numbers should be written with three digits (e.g. Interview 001, Interview 002, etc.).



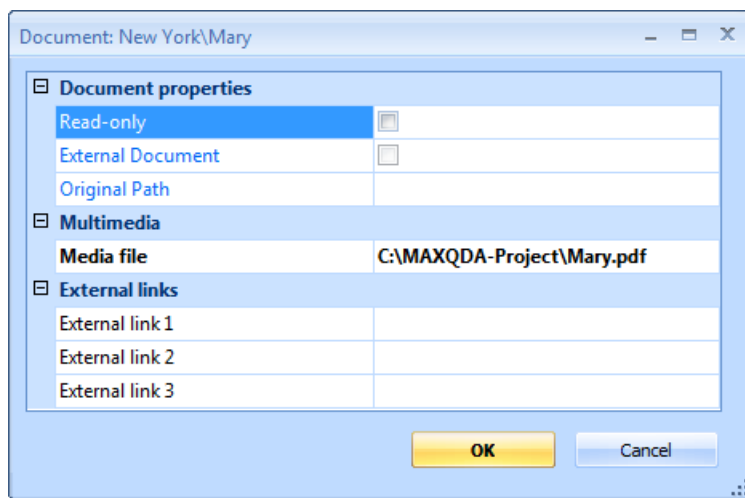
4.14 Text Formatting: Paragraph after x chars

In some cases, you may wish to analyze documents based on line number rather than paragraphs. There is a MAXQDA function that allows you to set the number of characters that should make up each line, which will then be treated as a paragraph. To do so, open the document in the “Document Browser” and switch to Edit Mode. Then right-click in the document and select **Insert paragraph after x chars**. You can then enter the number of characters that should make up each line (normally a range of 50-70 characters is appropriate). This option is only available for text documents that do not contain photos, tables, or external links. The result of the procedure is a line-numbered text with a fixed number of characters per line.

Careful: This action can only be undone while you are in Edit Mode. Once you have left Edit Mode, opened a different document in the “Document Browser,” or closed MAXQDA, the changes are automatically saved and irreversible.

4.15 Document Properties

If you right-click on a document in the “Document System” and select **Properties**, the following window will appear, which lets you view and change certain settings for that document:



Document properties window

Read-only – if this box is checked, the document will no longer be editable, even in Edit Mode. This is the default setting for PDFs.

External Document – If this box is checked, it means that the document is not actually part of the MAXQDA MX5 project file. Instead it has been copied into the folder for externally-linked files. In this case, the location of the original document will be listed. If you de-



cide at a later time that you want to import the document into the project file after all, you can do so with the **Embed external document** button.

Media file – If you want to link a document to an audio or video file, you can insert the path to that document in this field.

External link 1/2/3 – Click in this field to link to another document that can be accessed on your computer and has pertinent information, for example, about the interviewee or the project in general.



5 Importing Structured Documents

5.1 What are Structured Documents?

Often you may wish to import documents that are structured and pre-coded. Examples for this kind of document include:

- ☐ Forms – in this case, text passages should be pre-coded according to the heading field of the form.
- ☐ Results from database retrievals, such as a list of references, should be pre-coded with author, title, abstract, etc.
- ☐ Answers to open-ended questions in survey research – here you may wish to code the answers with a question number or an abbreviation of the question.

It is often clear even before you start your analysis that certain sections of text are going to pertain to a certain subject. So, to save the work of manually coding them, you can have them automatically coded during the import process.

As an example of this type of document, consider the answers to open-ended questions in questionnaires. Unlike narrative interviews, a document of this kind does not contain thirty or fifty pages but rather only a few lines, perhaps 10 to 15. Often there will be a large number of documents, maybe a few hundred or more. Another characteristic of such a document is that it is pre-structured: certain answers correspond to certain questions. The normal method of transcription and import into MAXQDA would make importing the documents a very time-consuming job. Every questionnaire would have to be transcribed with a word processing program and saved as a separate file. Attaching a question to its answer as a code to its corresponding text passage would not be possible when importing the text.

Also when working with focus groups, it saves a lot of time to code the text passages with their speakers before importing the text into MAXQDA. The MAXQDA Preprocessor offers a solution for this type of data.

There are three options for coding during import: you can use the Preprocessor, the Excel table import option or you can import bibliographical data in RIS format.

5.2 Importing Structured Documents with the Preprocessor

The Preprocessor allows you to enter a large number of documents into a single file and have them separated out into different documents when imported into MAXQDA. The syntax rules are as follows:


```
#TEXTtextname
this is the content of the 1st text
...
#TEXTtextname
this is the content of the 2nd text
...
#TEXTtextname
...
```

Formatting documents for the Preprocessor

Every document must start with the “#TEXT” without a space between “#” and “TEXT,” and “TEXT” must be written in capital letters.

The name that you want to give to the document should come immediately after the “#TEXT” without a space in between. If you do not enter a name, MAXQDA will automatically assign one when the document is imported. The first imported document will be called “Document 1,” followed by “Document 2,” etc. in the “Document System.” This automatic numbering is useful when, for example, you enter the answers to open questions in a partly standardized survey. The answers must then simply be entered in the order of the standardized data in the SPSS file. It is not necessary to enter a name for each text. Both texts will have the same name.

Document names are handled by MAXQDA as follows. You can enter any kind of string (up to 32 characters) as a document name – spaces are also allowed. If you enter a document name with more than 32 characters, MAXQDA will truncate it automatically. Once the document has been imported into MAXQDA, you can change the name to include up to 64 characters.

And what happens if you accidentally import a document with the same name as a document that already exists in the “Document System”? This is not a problem for MAXQDA – it will simply import the second document with the same name while retaining the first instance as well. It is not problematic for MAXQDA if there are several documents with the same name. It is still recommended, however, that you change the name of one of the documents, so that you don’t get confused as you continue your analysis. As is the case when importing files without the Preprocessor, the most recently imported document appears at the top of the list of documents in the “Document System.” This means that if you are using the Preprocessor to import several documents from the same file, the documents at the bottom of the file will be listed first in the “Document System.”

An Example

In the example project, various interviewees were asked about their level of satisfaction with various aspects of their life. The following is a Word file formatted for import into MAXQDA with the Preprocessor.



#TEXT 4(26,f,0k,sin)

I've gained too much weight over the last several years and I don't seem to be doing anything to get rid of it. I have high cholesterol levels, but I don't attempt to change my eating habits. I'd like to jolt myself into becoming more physically active, so I can lose the weight and feel more energetic. I keep saying I'm going to do something about it, soon.

#TEXT 3(34,f,2k,mar)

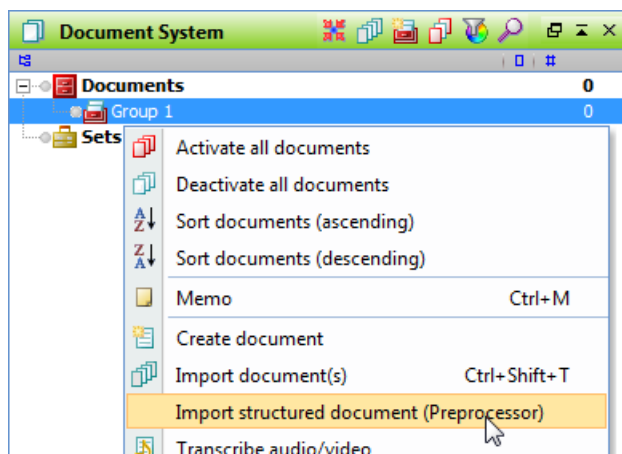
Overall I am pretty happy with my mental, social and physical health. I would like to improve my dedication to working out. I am the type of person who will work out 5 times a week for a month straight and then is slowly turns into less days a week until it is none. I get distracted by school work, my job or just being tired.

...

Section of a Word file formatted for import with the Preprocessor

After each #TEXT entry is the name being given to the document. For the purposes of this project, it made sense to assign a number for each of the interviewees in addition to some basic information about that person, including age, gender, number of kids, and marriage status.

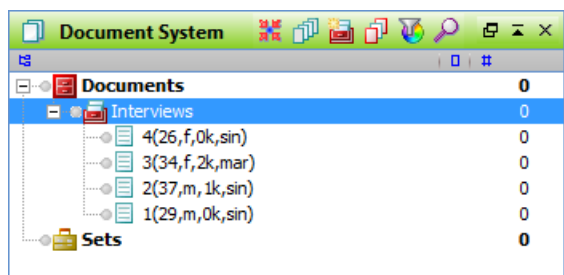
The Word file was then saved in RTF or DOC/X format with the name "HealthSatisfaction." It could then be imported by using the menu option **Documents > Import structured document (Preprocessor)**. Alternatively, you can select to import a structured document from the context menu of a document group or the document system root.



Starting the function "Import structured document (Preprocessor)" for a document group

Pre-Coding text segments during import

The document is then imported, separating out each individual document and assigning the given name for each in the "Document System" from the original RTF document.



Documents after being imported with the Preprocessor

In this way, it is possible to very quickly import and separate out many different documents formerly contained in a single file. The Preprocessor is able to do significantly more than this simple action, however. In many cases, you will already be able to code aspects of the document, and the Preprocessor can do that automatically during the import. To do so, you simply need to use additional syntax words.

For each section of the document that is to be coded, you simply need to type “#CODE” before and “#ENDCODE” after. In the case of a standardized survey or questionnaire, you could, for example, code each answer with the question number that it connects to. The answer to the first question, then, could be coded with the code “Question1” as is shown below:

```
#TEXTinterviewee1
#CODEquestion1
answer to question 1
#ENDCODE
#CODEquestion2
answer to question 2
#ENDCODE

#TEXTinterviewee 2
#CODEquestion1
answer to question 1
#ENDCODE
#CODEquestion2
answer to question 2
#ENDCODE

...
```

Using syntax rules to prepare for import with the Preprocessor

It is important to remember that there should be no space between “#” and “CODE” and that the word is written in capital letters.

To avoid typos when entering “CODEquestion1,” it is possible to simply use a place holder, such as “\$1” for the first question, “\$2” for the second, etc. You can then later do an au-



tomatic search and replace, finding all instances of “§” and automatically replacing it with “CODEquestion.” This can save you a lot of time in addition to helping you avoid typos.

It is also possible to define and code with a subcode in a document prepared for the Preprocessor. To do so, use the following syntax:

#CODEcodename\subcodename

You are giving the complete information about the subcode, including its name and the code it is a subcode of. The code and subcode are separated by a “\” symbol, but no spaces. As with any codes used in a document imported with the Preprocessor, MAXQDA will first check whether the code already exists, and if it does not, it will be created.

Important: it is not possible with the Preprocessor to code the same segment of text with more than one code. As soon as “#CODE” appears, the new code will be used, automatically ending the coded segment of the previous code.

Text excerpts, as well as full paragraphs, can be pre-coded with the help of the preprocessor during import, as shown by the following example:

```
#TEXTtextname
Here is a text. Encoding begins here with #CODECode 1\Subcode. In the next sentence it ends with
#ENDCODE# in the middle
#CODECode 2
Here is another text. The encoding ends here #ENDCODE# in the middle of the text...
```

Using keywords to code various text excerpts

For a preliminary encoding of keywords from various text excerpts, the following rules apply:

- ☐ When the keywords #CODE or #ENDCODE appear alone in a row, it is not necessary to insert # at the end. If these keywords appear within a text, or at the end of a line of text, they must be enclosed with #.
- ☐ It is not possible to “layer” encodings. When a new #CODE# command comes before an #ENDCODE# command, the previous code is automatically closed.

Note: Before importing a text with the Preprocessor, MAXQDA will ask whether the line containing a #CODE command should be retained. Usually this should be denied.

5.3 Importing Structured Text from a Table/Spreadsheet

In the **Document** drop-down menu, you will also find the option to **Import document from a spreadsheet**. With this function, you can import a number of documents at one time, with each cell content coded automatically. You can also include variables in these tables. This function is especially helpful if you are working with standardized online surveys with open-ended questions.

The table to be imported can be in either XLS/X or TXT (tab delimited) format.

Every row in the table must represent a document, every column represents a code, and each cell holds a coded segment. The first row contains all the key words, like “Document group,” “Document name,” and then the names of the codes or variables. Variable names must begin with the “\$” symbol.

Example

Document group	Document name	Question 1	Question 1	\$Variable
Group 1	T1	Text	Text	variable value
Group 1	T2	Text	Text	variable value

If you were to import the table above, you would get the following results:

1. The documents “T1” and “T2” would be created in the “Document System” under document group “Group 1.” If any of the documents or document groups already exist, they will be ignored.
2. The text segments in the column labeled “Question 1” are automatically coded with a newly-created code called “Question 1,” unless a code with that name already exists, in which case that code will be used.
3. If the variable “Variable” did not yet exist, it will be created, and each document (“T1” and “T2”) will be assigned the variable value in its row. If the document already existed and already had a value assigned to the variable, this value will be updated with the value in the table.

5.4 Import Bibliographical Data from Endnote, etc.

MAXQDA 11 allows you to import bibliographical data from reference management software such as Endnote, Citavi and Zotero. These programs are used mainly in the scientific fields to manage references and create bibliographies in the objective of supporting the creation of scientific texts. Reference management programs are similar to MAXQDA in that they work with projects and contain collected bibliographical information. The units of the project include Title, Author, etc., and may also include links to websites and related information.

MAXQDA is compatible with all reference management programs that can export their databases in RIS format, which is the standard format for bibliographical data. RIS format bibliographical reference entries will be subsequently listed one after the other as TXT data. RIS files contain two-letter “tags” which are followed by the relevant information. The most important tags include:

TY – Type of reference, always marks the beginning of a new entry



ID – Unique identification number for each entry

AU – Author

TI – Title

PY – Publication date

ER – Closes entry, always located at end of entry

A detailed description of all RIS format tags can be found on Wikipedia under [http://en.wikipedia.org/wiki/RIS_\(file_format\)](http://en.wikipedia.org/wiki/RIS_(file_format)). An example of RIS source data is listed below:

```
TY - BOOK
AU - McLuhan, Marshall
AU - Fiore, Quentin
TI - The medium is the message
PY - 1967
CY - New York
PB - Bantam Books
ER -
```

Calling up the Function

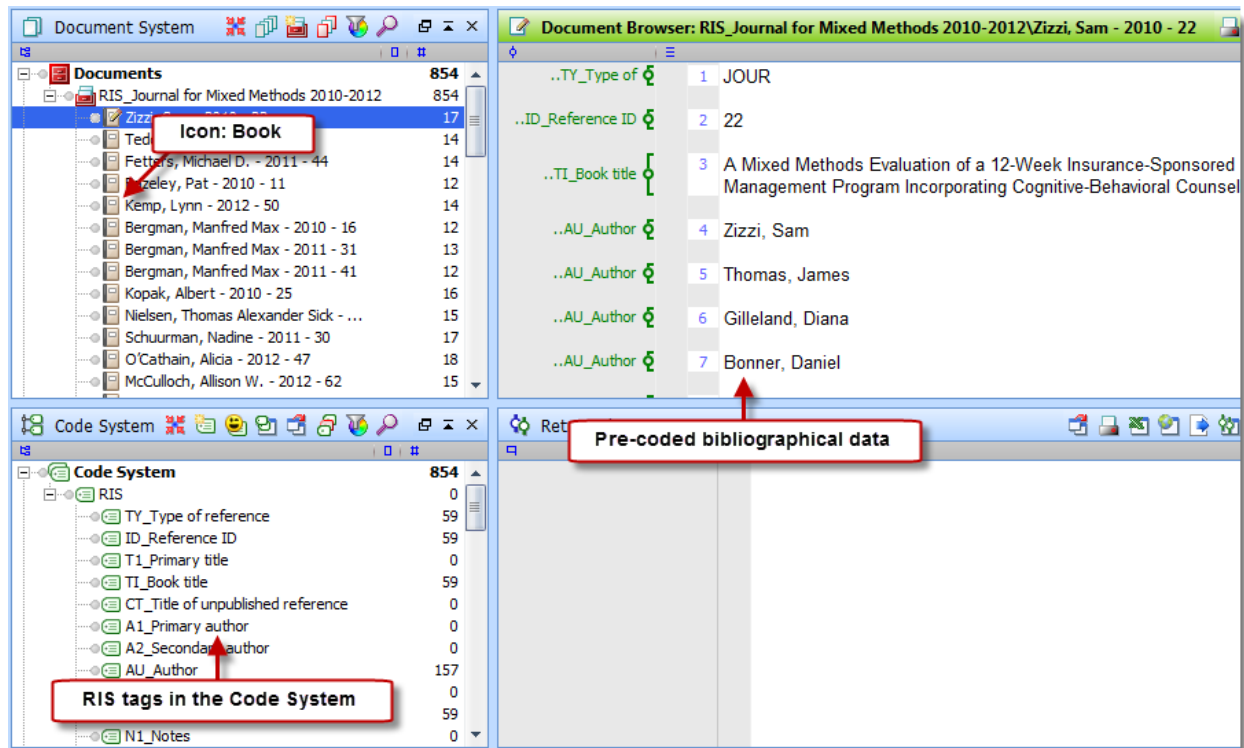
To import RIS data, select **Documents > Import bibliographical data**. A dialog window will appear which lists only file types ending in RIS or TXT. Select the desired file and click **OK**.

Importing and Automatically Pre-Coding Data

Data is imported in the following steps:

- ☐ A new document group is created, which is named "RIS_" followed by the name of the imported file.
- ☐ All bibliographic entries in RIS format are added to the new document group as single documents; entries remain in their original order. The imported documents are indicated with a book icon in the Document System.
- ☐ The document name appears as follows: <First Author> - <Year> - <ID>. Blank fields will be marked with a "?"
- ☐ The newly created documents contain the information listed to the right of the tags. The tags themselves will not be imported.
- ☐ A new top-level "RIS" code will be created in the Code System. The top-level code contains the tags in RIS format as subcodes (e.g. "TY - Type of Reference").
- ☐ When imported, all documents will be automatically pre-coded, during which each paragraph will be coded with the corresponding tag code.

- A display will appear which indicates the progress of the import.



RIS data after being imported into MAXQDA

Adapting Selected Information as Variables

The following variables will be automatically adapted as follows upon import of bibliographical data, for each newly created document:

- TY (Type of Reference) – String
- AU (First Author) – String
- TI (Title) – String
- ID (Identification number) – Integer
- PY (Year of Publication) – Integer

These variables are created by the system and cannot be modified by the user.



Document name	TY_Type of reference	AU_Author	TI_Book title	ID_Reference ID	PY_F
Zizzi, Sam - 2010 - 22	JOUR	Zizzi, Sam	A Mixed Methods Evaluatio...	22	
Teddlie, Charles - 201...	JOUR	Teddlie, Charles	A Continuation of the Para...	13	
Fetters, Michael D. - 2...	JOUR	Fetters, Michael D.	RO1 Funding for Mixed Met...	44	
Bazeley, Pat - 2010 - 11	JOUR	Bazeley, Pat	Book Review: V. L. Plano Cl...	11	
Kemp, Lynn - 2012 - 50	JOUR	Kemp, Lynn	Mosaics, Triangles, and DNA	50	
Bergman, Manfred Ma...	JOUR	Bergman, Manfred Max	On Concepts and Paradigm...	16	
Bergman, Manfred Ma...	JOUR	Bergman, Manfred Max	The Politics, Fashions, and ...	31	
Bergman, Manfred Ma...	JOUR	Bergman, Manfred Max	The Good, the Bad, and th...	41	

Adapted variable values for each document

Working with Bibliographical Data in MAXQDA

After import and automatic pre-coding, a normal text view of the bibliographical data is available in MAXQDA. This means that the data can be searched, coded, linked, and edited, and that memos can be attached. All Visual Tools and other functions (e.g. Statistics and Graphics) can also be employed. Automatic pre-coding makes it possible to isolate specific document types for analysis, e.g. journal articles only or anthology entries only.

Export Bibliographical Data in RIS-Format

Bibliographical data in RIS format can be exported from MAXQDA, i.e. for import into a reference management program. The export function is located under **Project > Reports & export > Bibliographical data as RIS file**.

After selecting an export location, all documents in the project which contain bibliographical data (indicated with a book symbol) will be exported as RIS data (UTF-8 coding).

6 Links: Document Links, External Links, Web Links, and Geolinks

6.1 Links in MAXQDA

MAXQDA distinguishes between four types of links:

1. *Document links* represent a connection between two text or image segments (e.g. to show the contrast between two interviewees' responses to the same question, you could link them with each other).
2. *External links* create a connection between a text or image segment and an external document (e.g. a picture, document, audio/video file, etc.) that is not part of the MAXQDA project.
3. *Web links* are connections between a text or image segment and a webpage. By clicking on this link, you can open the website in your standard browser.
4. *Geolinks* create a connection between a text or image segment and a place on the globe. This place is based on GPS coordinates and is shown in Google Earth or other similar programs.

You can create or delete links in MAXQDA's "Document Browser" or in MAXMaps, the modeling add-on that allows you to create visualizations of your data and concepts and show connections between them.

The four types of links are visualized with various symbols in the "Overview of links."

6.2 Document Links

It is possible to link documents or positions in documents with the help of document links. Document links are used in the same way as hyperlinks in the Internet; they link two document or positions in document together. Clicking a document link causes the corresponding document link to be loaded.

In MAXQDA, document segments that are in the same document or in different document can be linked. To link document, select at least a single character from a document in the "Document Browser" – normally a word or more is suitable.

Document segments are linked as follows:

1. Select the first document segment (the anchor) and click the blue Document Link symbol in the coding toolbar (or choose the option **Insert Document link** from the context menu). The selected document segment now appears blue and underlined.



Toolbar button for creating a document link

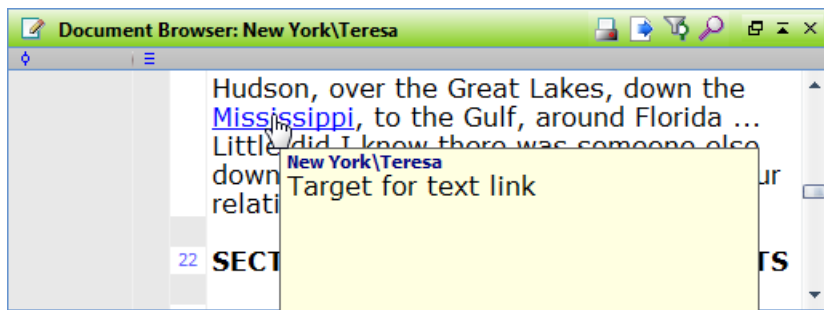
2. You can now choose the document or document segment that the anchor should be linked to. This second segment can be in the same document or in a different one. Simply go to the document or document segment and highlight a section of text.
3. To complete the link, simply click again on the **Insert link symbol** in the toolbar or right-click on the highlighted text and choose **Insert link**.

If, after the first step, the user decides against creating the link or wants to change the text that had been selected, clicking the **Remove last link** symbol removes it.



Toolbar button for removing a document link

Document links appear underlined and in blue in the “Document Browser.” Holding the mouse cursor over the text causes a screen tip to appear with information about the linked document segment: the name of the document and the actual text selected when the link was made.



Blue underlined document link with tooltip

For this reason, it is sometimes a good idea to select not only a word, but a whole sentence or paragraph as the link.

Simply clicking a document link allows one to jump from the link in the “Document Browser” to the other linked segment. The document containing the link appears at the position of the linked segment.

To delete a document link, click the link with the right mouse button and choose **Delete Link** from the context menu.

6.3 External Links

External links are links between a segment of a text or image in MAXQDA and a document outside of the project (e.g. to link part of an interview transcript in MAXQDA with a picture of the person saved elsewhere on your computer).

To insert an external link, simply highlight a section of text or image, right-click on it, and select **Insert external link**. A window will then appear where you can select the appropriate external document to be linked. This can be on your internal hard drive, an external medium like a flash drive, or a network location.

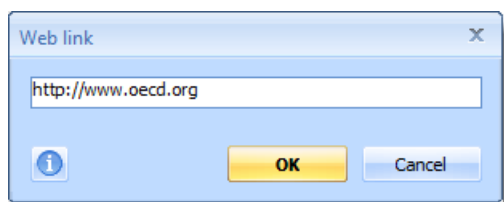
External links are also blue and underlined like the document links. When you hover the mouse over the link, a tooltip appears with the name and location of the linked document. Clicking on the link opens the document in the appropriate program. If the segment is linked to a Power Point slide, for example, it will be opened in Power Point.

6.4 Web Links

Web links in MAXQDA are links between a text or image segment and a website. A web link can be created as follows:

1. Highlight the text or image segment to be linked with the web address.
2. Right-click on the highlighted segment and select **Insert web link**.

A window will appear and you will be able to enter a web address.



Window to insert Web link

Note: If a link was saved to the Windows clipboard, it will be automatically displayed in the input field.

As is the case with the external links, you can hover over the web link and see the linked website in the tooltip. Double-clicking on the link brings up the website in your standard internet browser.

6.5 Geolinks

With the creation of programs like Google Earth and Google Maps, it has become possible to view any point on the globe with the appropriate coordinates. Geolinks or Georeferences are links between elements in MAXQDA and a selected place on the globe. You could, for example, choose to link each interview transcript in MAXQDA with the place the interviewee lives.

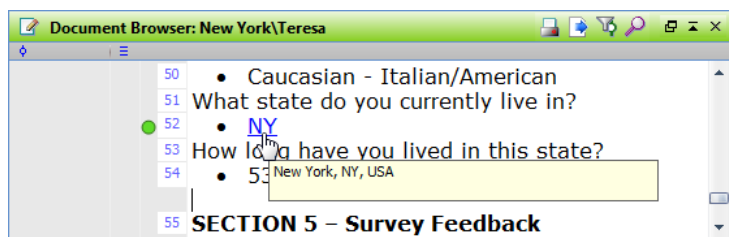
With the help of these geolinks you can also show geographic aspects of sociological research data. The use of georeferencing tools, especially Google Earth™, in combination with software for qualitative data analysis is fairly new. Cesar Cisneros, professor of sociology at Universitaria Autonoma Metropolitana Iztapalapa in Mexico, was one of the first to use this technique. In 2006, he used geolinks in MAXQDA for a research project in South America. MAXQDA includes a column in the “Document Browser” specifically for these geolinks. To create one, follow these steps:

1. Go to the location in Google Earth™ that you would like to link to. You can then save the location by right-clicking on it and selecting **Save Place As ...**
2. Choose a location to save the file and make sure to save it as a “KML” file instead of a “KMZ” file, which is the default.
3. Highlight the text or image segment to be linked in MAXQDA, right-click on it, and select **Insert geolink**. Simply select the saved KML file in the window that appears, and the geolink has been created.

The KML file contains the coordinates to the saved place and everything else that Google Earth™ needs to take you directly to that location. When you click on the geolink in MAXQDA, Google Earth™ is opened, and you are taken directly to that location.

Geolinks are visualized similar to other links (blue and underlined), but they also have their own visualization column next to the opened document. If the column is not shown, right-click somewhere in the document in the “Document Browser” and select **Show geolink bar**. This bar makes it easy to differentiate between regular document links and the geolinks.

By hovering your mouse over the geolink visualization, you will see the coordinates that are saved for that location. The screenshot below shows you this below. It is a geolink in the interview transcript “Teresa,” linking to the place that she lives in “New York, NY, USA” at the exact coordinates.



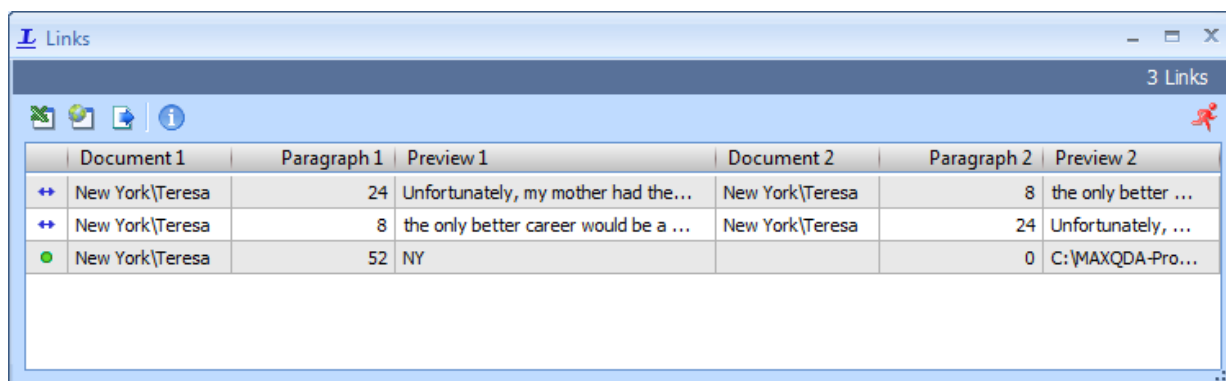
The green ball symbol to the left of the paragraph number visualizes a geolink

A copy of the KML file is automatically saved in the MAXQDA folder for externals, which means that the file does not become part of the project file. Having all external files saved in this specific folder makes it easy to move your project file and all associated external files from one computer to another. Be careful not to delete these KML files from the externals folder – doing so will cause the geolinks to stop working. In the case that geolinks are placed in an external folder where a KML file of the same name already exists, MAXQDA will ask if the file should be overwritten.

The KML file is in XML format. It can be viewed in Windows Internet Explorer or any other software that can open XML-formatted documents.

Segments that contain geolinks can be coded just as any other segment can.

To view all of your geolinks in a project, document group, or document, right-click on that document or document group and select **Overview of links**. You can then sort the links according to type by clicking on the first column header. The rows with a green ball symbolizing the geolinks will be grouped together.

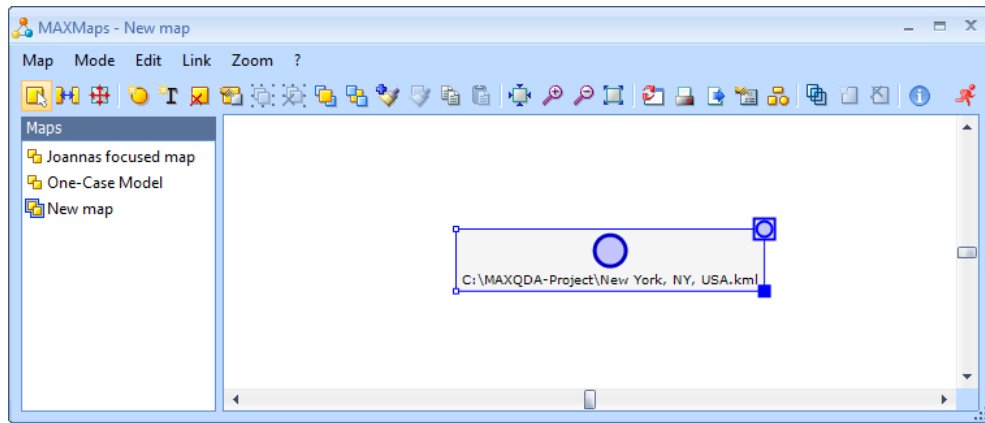


"Overview of links" showing the green ball in the far left column indicating a geolink in the third row

Inserting Geolinks as Stand-alone Objects in MAXMaps

Geolinks can also be inserted in MAXMaps by right-clicking in a map and selecting **Insert geolink**. You will then be able to select the appropriate KML file from the window that appears.

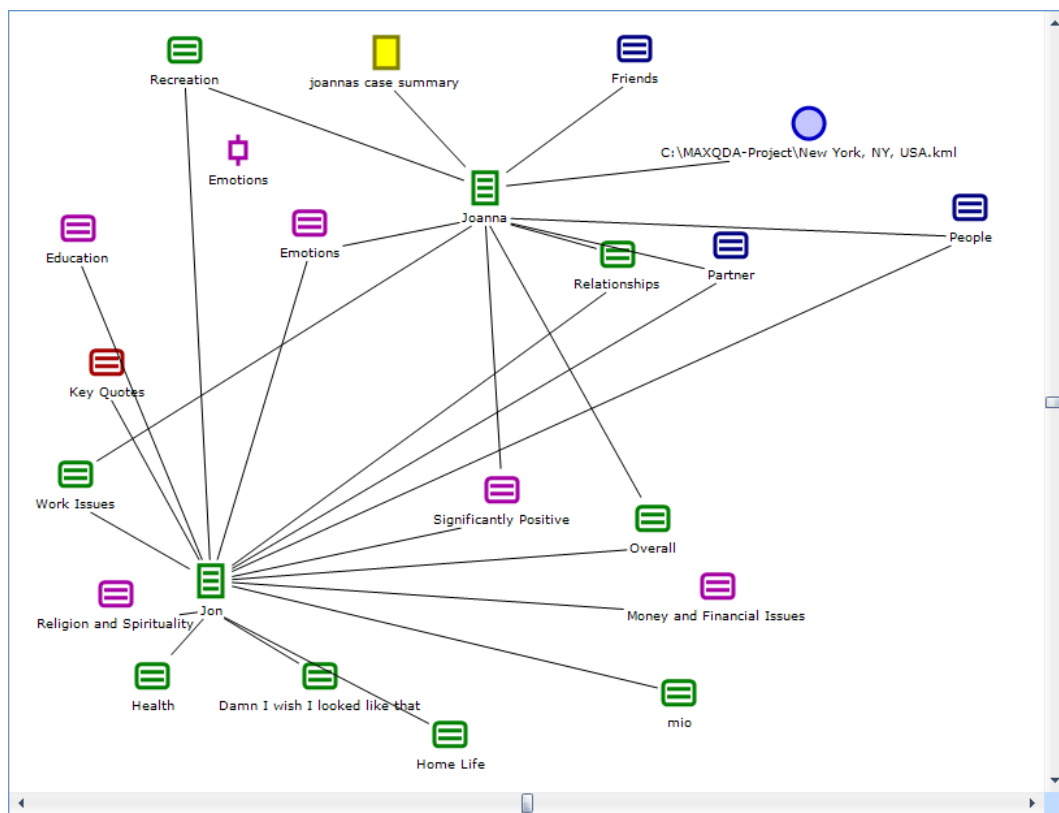
The MAXMaps screen then looks as follows:



A geolink inserted in MAXMaps

The name of the location in Google Earth is automatically inserted as the label for the geolink in the map. This label is usually long and can be easily changed.

The inserted geolink can then be set up, visualized, linked to other objects, and moved around just like any other object in MAXMaps. You can, for example, insert a picture to replace the blue circle, change its size, etc.

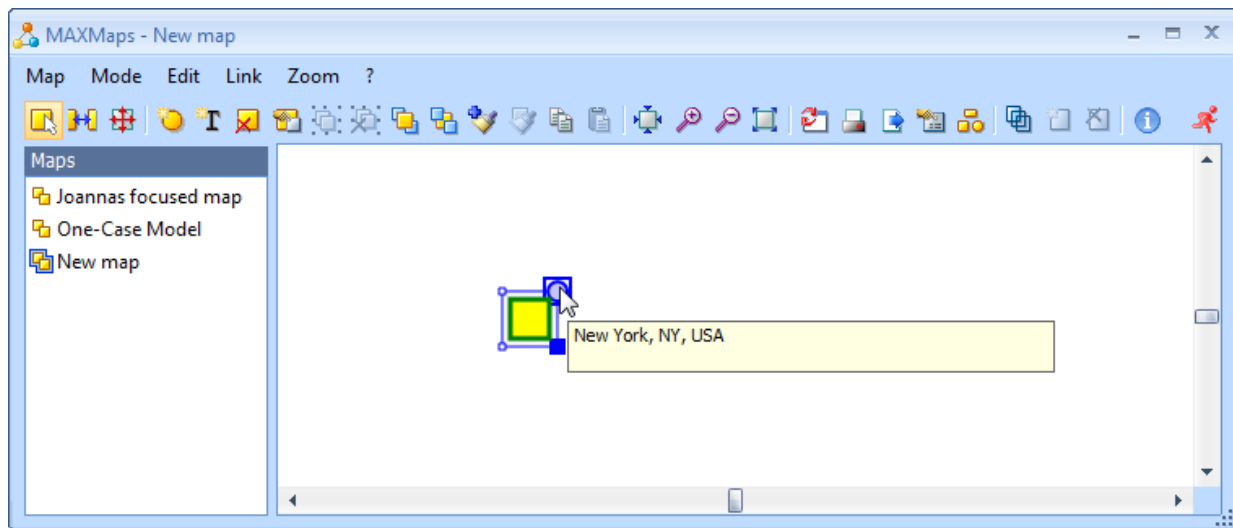


A geolink along with other elements in a MAXMaps map

Inserting Free Objects with Geolink Attributes in MAXMaps

You can also insert a free object into a map and link it to a geolink. The following screenshot shows such an object. If you click on this object, a border appears with a blue ball in the top right corner, which indicates that it is linked to a geolink location.

Hovering with the mouse over the blue ball brings up the tooltip with information about the location. By double-clicking on the symbol, you open Google Earth and go directly to that location.



A free object in MAXMaps with a geolink

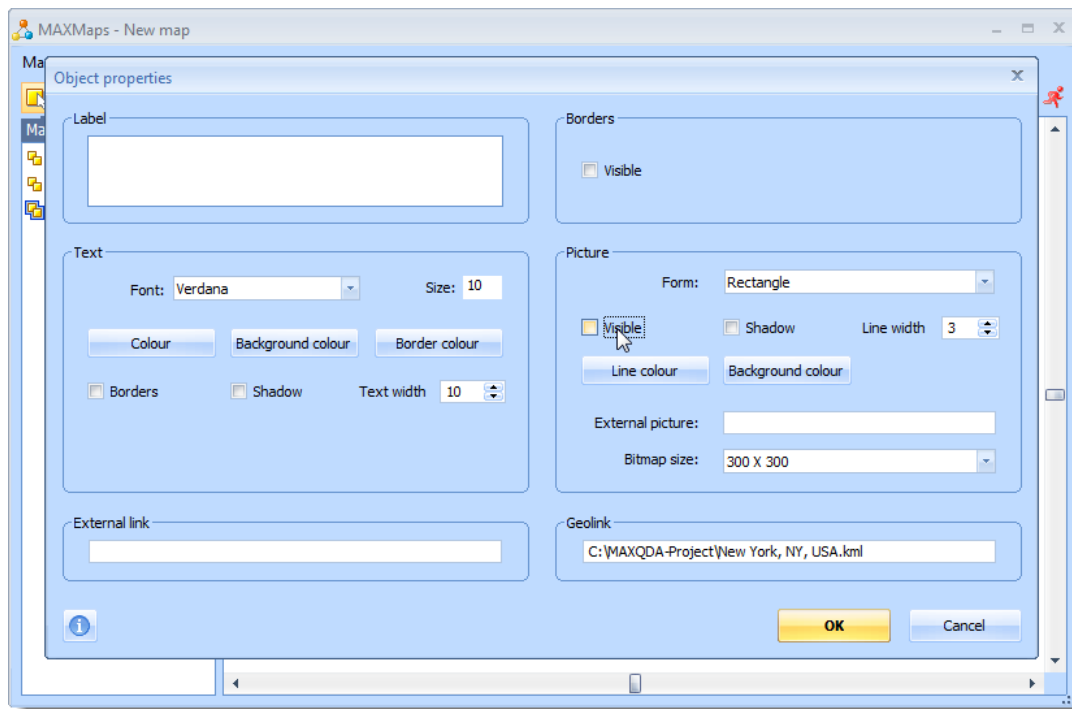
Geolinking for Codes, Documents, Memos and Coded Segments in MAXMaps

All MAXQDA objects inserted in MAXMaps can be connected to a geolink. As with the free objects mentioned above, a blue ball appears in the top right of object's frame when it is clicked on. Double-clicking on the ball opens Google Earth™ and takes you to the assigned location.

Geo-Links as Hot Spots in MAXMaps

It is also possible to insert a geolink in MAXMaps as an invisible hotspot. You can insert this hotspot by right-clicking on a white section of a map and selecting **Insert geolink**. You can then get rid of the label and change it to invisible by unchecking the box next to **Visible** in the object properties window. The hotspot is then invisible, but it still works; a double-click opens Google Earth™ and takes you directly to the assigned location.

These hotspots are especially helpful when you have a map as a background and want to be able to click on different parts of the map to take you to that spot in Google Earth™.



Making a geolink invisible, so it can act as a hotspot

Using a Background Image with Geolinks in MAXMaps

Google Earth™ allows you to save any view as a JPG file. You simply go to the **File** drop-down menu and select **Save > Save Image**. The view is then saved as a JPG file, which can be inserted in MAXMaps as the background.

Invisible hotspots as well as all aspects of your MAXQDA project can then be inserted and placed on the newly-imported background.

6.6 "Overview of links"

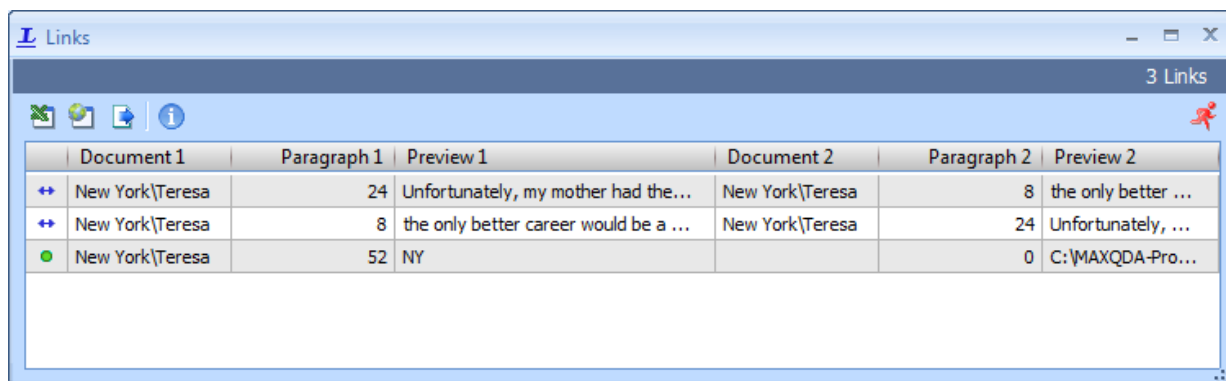
Document links, the most common form of link, are easily seen in the "Document Browser," but if you have created many links, it is difficult to get an overview of them. For this reason, MAXQDA makes it possible to view all links in an overview table. This overview table is similar to the one used for the "Overview of coded segments."

To view the "Overview of links," right-click on a document, document group or the "Documents" icon (representing the entire project) in the "Document System" and select **"Overview of links."** When right-clicking on a document or document group, only those links from that document or group will be shown.

The overview contains the following information:

Anchor point (Document 1), paragraph 1, preview 1, second location (Document 2), paragraph 2, preview 2.

In other words, you see the document name, paragraph number, and a preview of each side of a link. Document links are not hierarchical, meaning they don't have a specific direction. A link from Point A to Point B is also a link from Point B to Point A. If you view all links from the whole paragraph, you will therefore see each link listed twice: once as Point A to Point B, and once as Point B to Point A.



	Document 1	Paragraph 1	Preview 1	Document 2	Paragraph 2	Preview 2
↔	New York\Teresa	24	Unfortunately, my mother had the...	New York\Teresa	8	the only better ...
↔	New York\Teresa	8	the only better career would be a ...	New York\Teresa	24	Unfortunately, ...
●	New York\Teresa	52	NY		0	C:\MAXQDA-Pro...

"Overview of links" for a project

In the "Overview of links," each type of link can be distinguished by the symbol that appears in the column on the far left:

- ↔ Document links have a blue, two-directional arrow.
- ↗ External links and web links have a red arrow pointing up and to the right.
- Geolinks have a green ball.

The "Overview of links" table works like other MAXQDA tables. You can choose to sort it alphabetically or reverse alphabetically by clicking on the column headers. Clicking once on a link opens the linked document segment in the "Document Browser," showing you where the link is located. You can also access several functions in the table toolbar:



Excel table – a table with the selected links is created and saved in XLS/X format and opened in the program (usually Excel) that handles this type of files.



HTML table – a table with the selected links is created and saved in HTML format and opened in the standard web browser.



Export – allows you to export the table in XLS/X, HTML, or TXT (tab delimited) format.



7 Codes and How to Code

7.1 Information on Codes and Coding in MAXQDA

One of the main functions of MAXQDA is the “coding” of document segments, that is, the assignment of a code to particular document segments, e.g. enabling a systematic content analysis of a text.

The codes themselves are simply strings containing up to 64 characters, which are attached to segments of a document (text or picture sections). Codes are like drawers containing index cards with text and image sections and keywords. The name of the code is like the label attached to the front of a drawer. What you will find in the drawer is indicated here. The label itself has no effect on the contents, so you can attach another label without consequences. Codes can be ordered into a hierarchical structure, a main code having several subcodes, for example. As you add codes, they can be organized in this window. By right-clicking on either of the icons in the “Code System” window, you will see a variety of functions that are possible there.

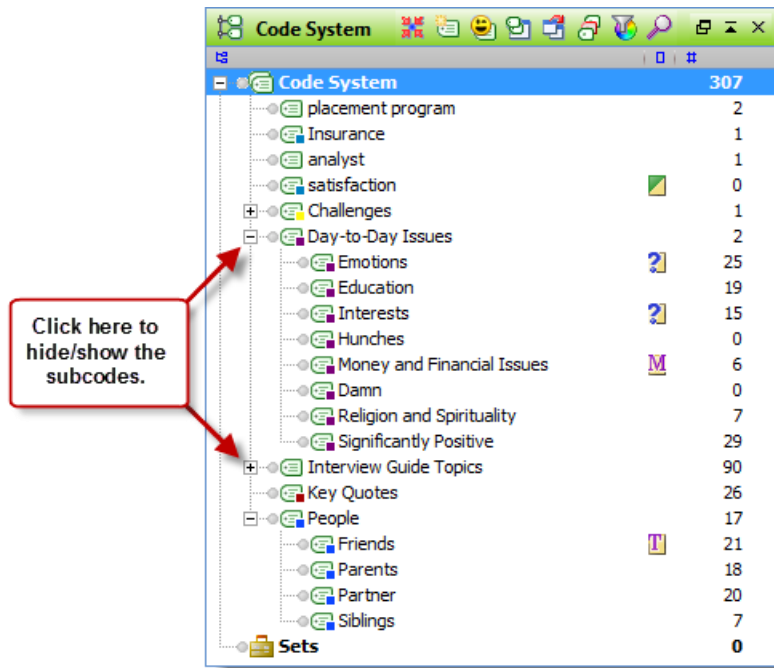
7.2 The “Code System”

All of the codes are shown in the “Code System” window. At the beginning of a project, this window is empty except for the “Code System” and “Sets” icons. MAXQDA’s “Code System” has the following characteristics:

- ☐ A code is a string with a maximum of 64 characters consisting of one or more words. A code can contain any character except a backslash “\.”
- ☐ The number of codes is unlimited.
- ☐ The hierarchical structure can contain up to ten levels.
- ☐ Codes can be assigned a color.
- ☐ Codes are assigned an identification number.
- ☐ The so-called color codes play a special role. They are like text markers and change the background color of the marked text.
- ☐ emoticones also play a specific role. An emoticon symbol appears in the “Code System” in the place of the code symbol, with pre-defined names which can be changed.

Working with coded segments (of text and images) and the “Code System” is a central aspect of computer-supported text and content analysis. This work is usually not done automatically by the software, but rather is controlled by the researcher, although this often requires a significant amount of time. The “Code System” is shown as a tree structure on the screen. It looks like the file/folder system in Windows Explorer with which you are likely

familiar. A plus or minus sign before the code name indicates whether or not a code contains subcodes. You can expand or close the sub-categories by clicking this button.



Hide subcodes

Note: In MAXQDA, the codes in the “Code System” can be moved or grouped together using Drag & Drop (by holding down the left mouse button). To transform a code into a subcode of another code, drag the selected code to the destination code by holding down the left mouse button, then “drop” it into place. To move a code in between two other codes, “drop” it between the two codes.

It is easy to rearrange the “Code System” in a way that is useful for your work. It is often the case that you will find it helpful to arrange your codes in an order that follows your research process or argumentation. The possibility to arrange codes in a specific sequence makes it easy to minimize the need to move around within the category system during the coding process.

Tip: Using MAXMaps you can build a network structure of codes to be used during the coding process, meaning you can code selected segments within a document and code them by dragging them onto a code in the network map.

The “Code System” Toolbar

Like the other main windows of MAXQDA, the “Code System” has a toolbar where you can find the following icons:



Reset activations – resets current code activations



Create new code – adds a new code into the code system



emoticon view on/off – hides or displays emoticons in the “Code System”



Code Browser – alternative view of the “Code System” and the code memos. It can be especially helpful if you want to create many codes at one time



Change to table view – changes from tree view (as in Windows Explorer) to table view of code system and back



Activation by code variable – allows the activation of codes, based on variable values



Activation by color – allows the activation of codes, based on their assigned colors



Context search – search for codes within the “Code System”



Undock window



Maximize window



Hide window

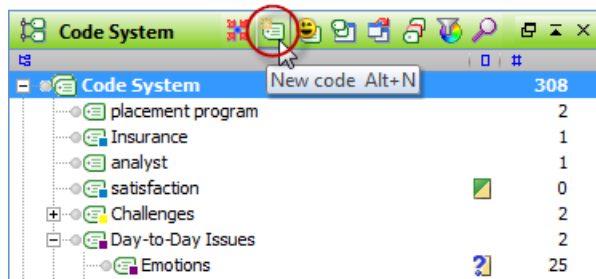
In addition to using the toolbar to access functions in the “Code System,” you can also use the context menus that appear when you right-click on various icons in the window (e.g. on a code or the “Code System” icon, etc.).

7.3 Creating a New Code

The word “Code System” at the top of the list represents the root of the “Code System” that you will build from this point. All codes can be created in this way.

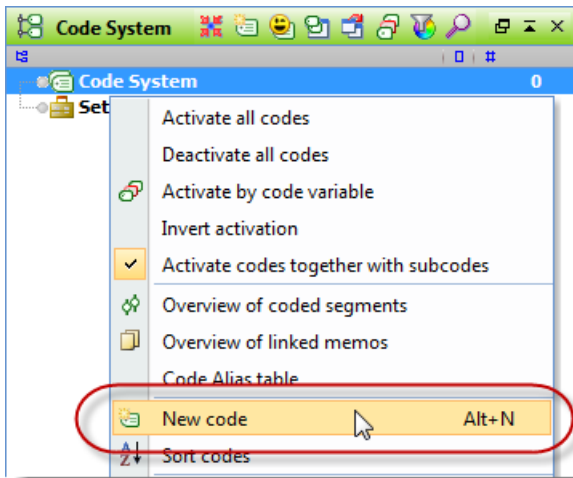
In order to create a new code at the highest level, we can do one of three things:

1. The easiest option is to click on the **New code**  symbol in the “Code System” toolbar.



Toolbar icon for inserting a new code

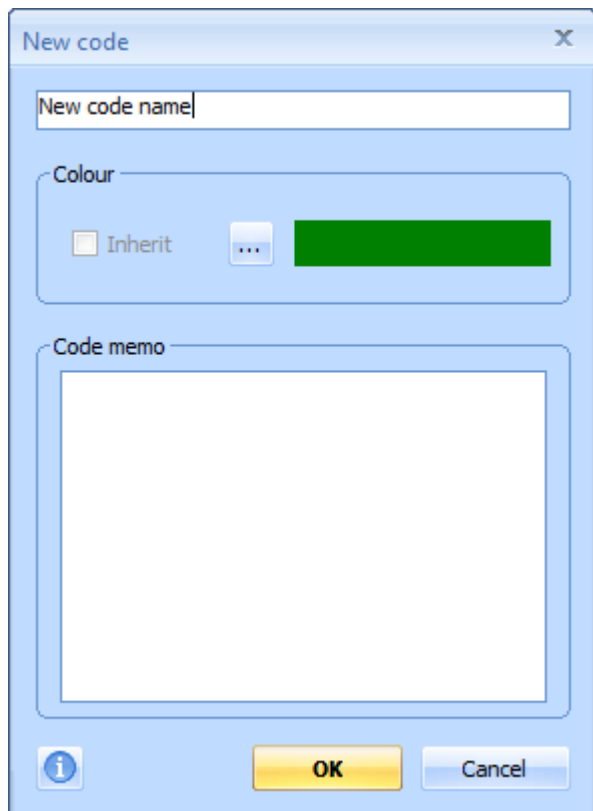
2. Another option is to right-click on the **Code System** icon and select **New code** from the menu that appears.



Creating a new code with the context menu

3. The third option is to create a new code by using the keyboard shortcut **Alt+N**. For this to work, however, the "Code System" window must be selected.

No matter which way you choose to create a new code, the following window will appear:



The window that appears when creating a new code


Type the name of the new code in the upper dialog field of the window. You can select a color attribute for the new code below. There is an almost unlimited number of colors that you can pick from or design on your own. The dialog field in the lower part of the window



enables you to write a code memo, for instance a definition of the characteristics of the new code.

Creating Subcodes

If you would like to define subcodes, just right-click the parent code and choose the option **New code**. Again the same dialog window as mentioned above will pop up. If you want the subcode to have the same color attribute as the main code, just click the checkbox “Inherit.”

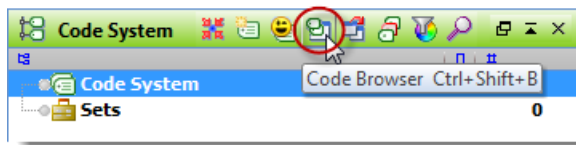
Creating subcodes can also be completed using the **Alt+N** keyboard shortcut or the **New code**  icon from the toolbar.

If you have entered text into the memo field of the dialog box, a memo icon is displayed beside the new code in the “Code System” as soon as you close the dialog window.

Note: Newly-created codes are always added at the top of the “Code System” unless created as a subcode, in which case it will appear as the top subcode.

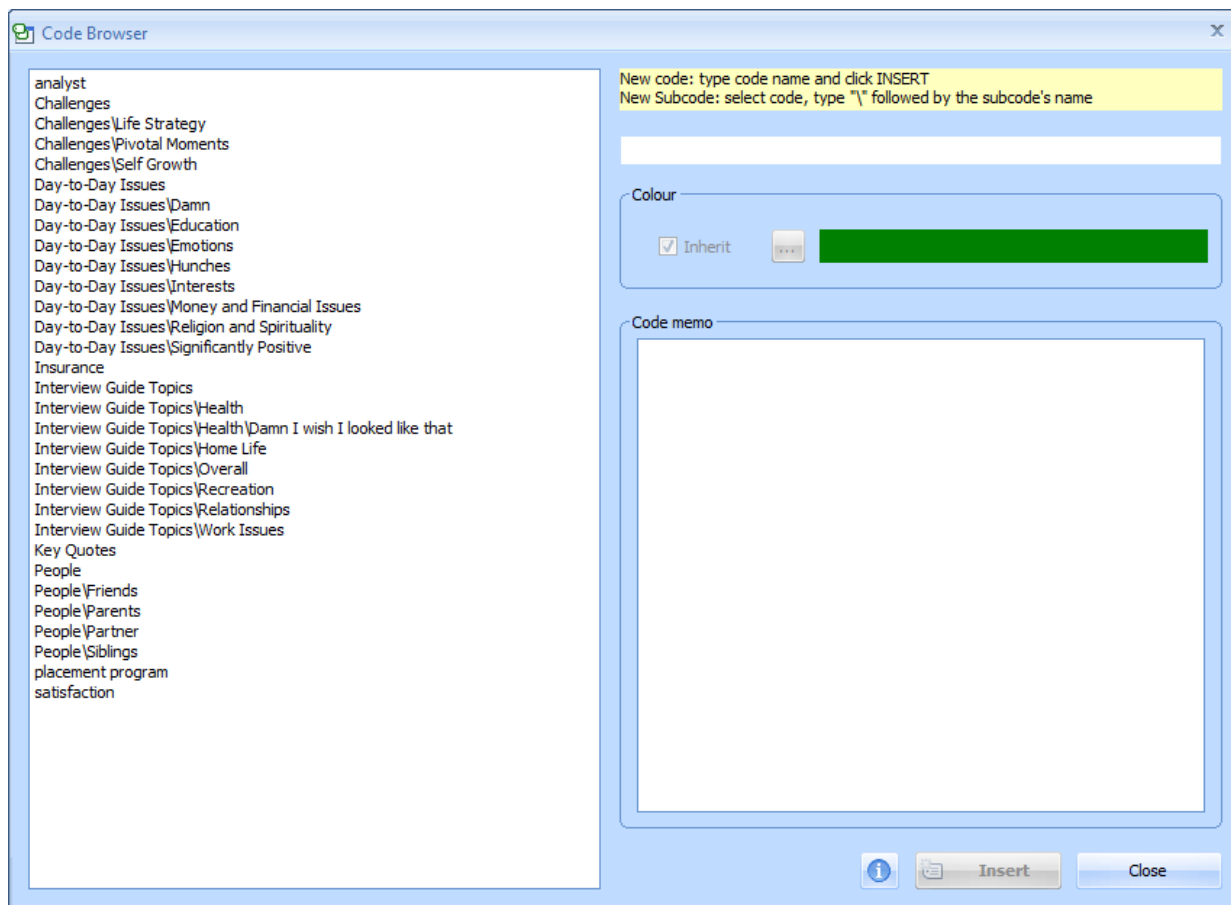
7.4 Using the Code Browser to Create Codes

The Code Browser offers a fast way to define a set of codes or an entire “Code System.” The function is started by clicking the appropriate icon from the toolbar.



Opening the Code Browser

In the left part of the window shown below, the already existing codes are displayed. The dialog field in the upper right corner is used to type in new codes. You may do this step-by-step, one after the other. At the end of each code click **Insert** or press the Return key.



Code Browser window for code creation

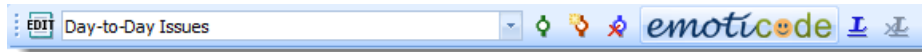
Defining subcodes is as easy as defining the codes. Click a code in the list on the left side. This brings the code into the dialog field. Type in a slash ("/"), then the name of the subcode, and press enter. The Backslash is not always present on Apple keyboards. In this case, select **Alt+Shift+7**.

Confirm each code definition by clicking **Insert** or **Return/Enter**.

You also have the option of creating a code memo by typing in the field in the bottom right of the Code Browser.

7.5 Coding Text and Images

Assigning codes to segments of texts or images in MAXQDA is known as "coding."

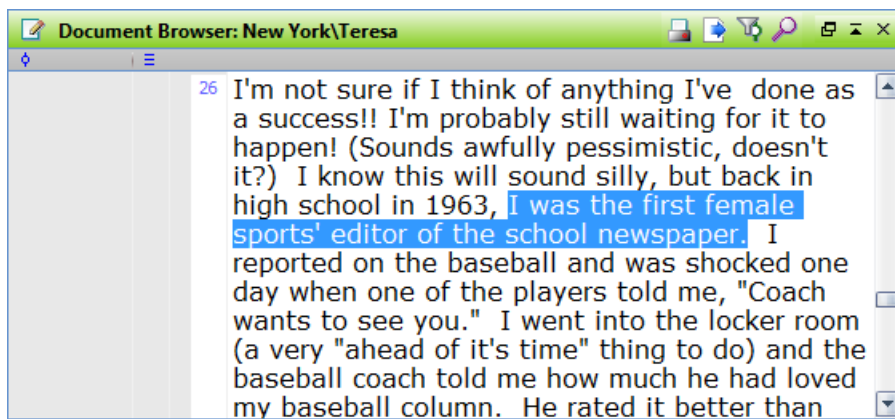


The “Code” toolbar

A document or document segment can be coded with as many codes as you want. There is practically no limit to the number of codes that you can create and assign. Coded segments can also overlap, intersect, or be completely contained within other coded segments.

Select the Segment to be Coded

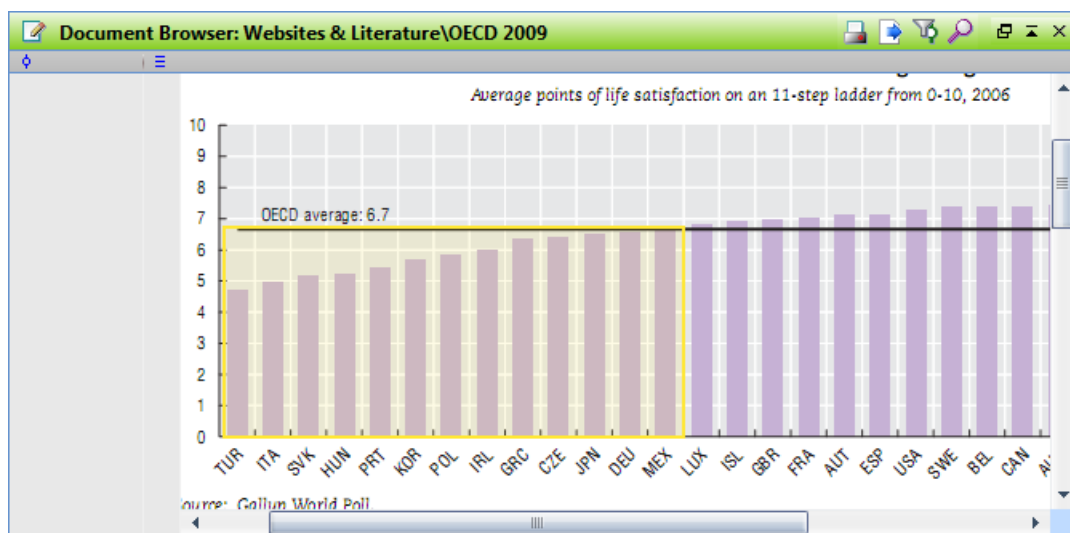
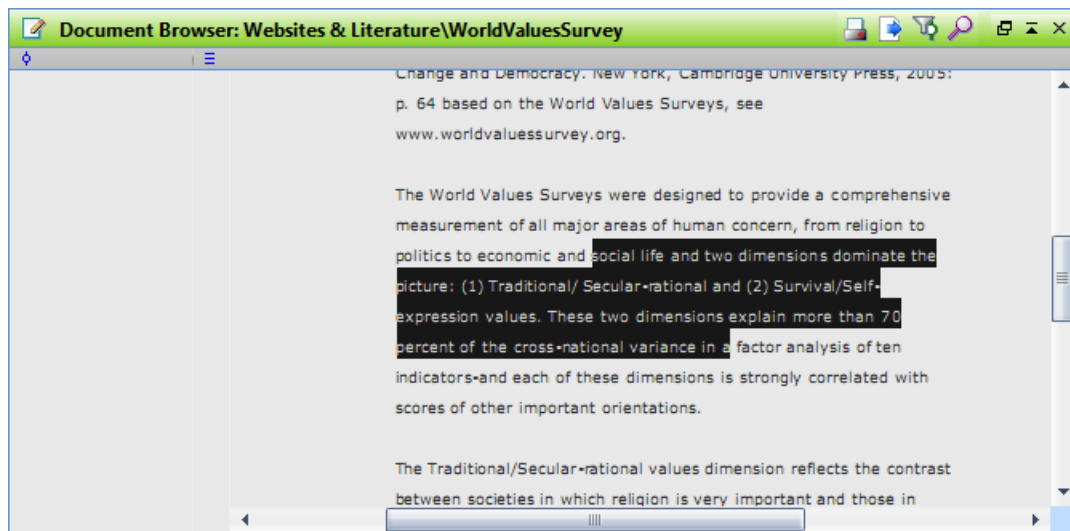
The action of coding can be done in many different ways, but you must always start by highlighting a section of a text or a picture to be coded in the Document Browser.” An example of highlighted text within the “Document Browser” is shown below:



A highlighted segment of text

The smallest segment of text that can be coded is a single character. In most cases, you would want to code at least an entire word. The “Code” toolbar is especially helpful when going through the coding process. If it is not currently visible, you can activate it by clicking on it in the **Toolbars** drop-down menu.

In PDF files, both text and image segments can be coded:



Highlighted text (above) and highlighted image segment (below) in a PDF

Different Ways to Code

MAXQDA offers several ways to code segments:

1. *Classic coding using Drag & Drop:* A selected text segment or image segment can be dragged and dropped into a code (or vice versa) using the mouse.
2. *Classic coding using context menu:* A selected text segment or image segment can be coded by using the context menu in the "Document Browser" window.
3. *Free coding using keyboard shortcuts:* As in *Grounded Theory*, a segment can be assigned a new (free) code.
4. *In-Vivo coding:* Select and highlight meaningful terms in the texts and automatically add them as codes in your code system while coding the text segment with the code.



5. *Coding with selected codes from the Quick List:* Documents are targeted based on the occurrence of one or more pre-selected codes, and coded where applicable.
6. *Highlight coding:* This works like highlighting a text passage in a book with a colored text marker. In MAXQDA, five different colors can be used for color coding: red, green, yellow, blue or magenta.
7. *Simultaneous coding with multiple codes:* A segment is coded with the activated codes.
8. *Coding with code favorites:* Selected codes are displayed in a separate window, from which they can be easily applied to segments to be coded.
9. *Coding with MAXMaps:* Selected segments are dragged to codes on a map.
10. *Coding with symbols and emoticons:* Selected segments are coded with a emoti-codes, i.e. an emoticon or a symbol.

Note on coding: Regardless of the function selected, MAXQDA ensures that the same code is not assigned more than once to the same passage. The overlapping of segments with the same code is not possible. When segment size is modified - made larger or smaller - and coded with the same code, MAXQDA will automatically correct the segment size to correspond to the new selection.

The following section describes in detail how these techniques are used. The different options can be chosen from the context menu that pops up when you select a document segment and click the right mouse button.

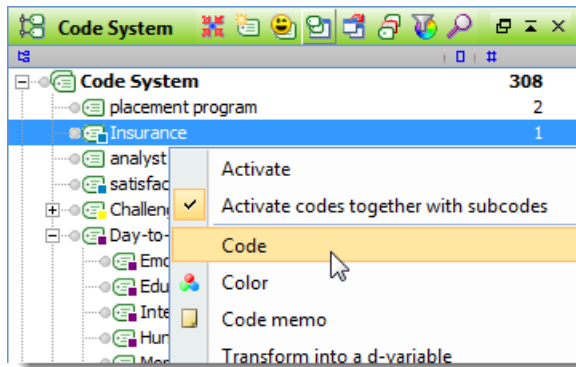
1. Classic Coding via Drag & Drop

Left-click and hold on the selected text and move the mouse pointer to the name of the code in the "Code System." Release the mouse button to assign the segment to this code, as you can see in the gray column next to the document in the "Document Browser" window. The reverse also works, i.e. you can drag the code to the selected document segment.

Tip: The same segment can be assigned multiple codes in a row.

2. Classic Coding Using the Context Menu in the "Code System"

Right-click on the code in the "Code System" that you would like to use to code the highlighted document segment in the "Document Browser." Select **Code** from the context menu.




Using the context menu in the "Code System"

3. Free Coding with Keyboard Shortcuts

An easy way to create a new code, i.e. a code that is not yet listed in the "Code System," is to use the shortcut **Ctrl+W**. A dialog window will open, and you can type in the name of the new code. The code will be added to the "Code System" at the highest level of the hierarchy. If necessary, you can later move the code to another level in the "Code System."

4. Focused Coding with the Quick List Coding Button

The "Code" toolbar provides quick access to frequently used coding functions. The "Quick List" is located on the toolbar to the right of the Edit button. Whenever you click on a code in the Code System, or when coding is in process, the corresponding code appears at the top of the Quick List. Click on the Coding  button immediately to the right of the Quick List button to assign the code in the window to the selected segment. In this way, multiple areas of a document can be coded without having to select the code each time.

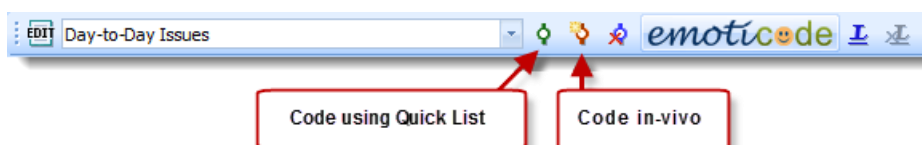
You can also use the keyboard shortcut **Ctrl+Q**.

5. Coding with Multiple Codes Simultaneously

First, activate the codes in the "Code System" that you want to use to code the selected segment in the "Document Browser." Then right-click on the segment and choose the option to **Code with selection**.

6. Coding with the In-vivo Coding Button

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 toolbar, the word "global village" is added to the "Code System" as the code for this short text segment. The shortcut **Ctrl+I** has the same effect.



Coding with the Quick List or the in-vivo button



When you want to code a whole segment of text with the in-vivo coding function, and not only one or two words, code the one or two words 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 segment automatically.

Note: Other coding methods including color-coding, MAXMaps, code favorites and emoti-codes are explained in separate sections.

7.6 Highlight Coding / Color Coding

Color coding text is a technique that is especially useful at the beginning of the analysis process. It is similar to the marking of text in a book with a highlighter. It allows you to mark the passages you find particularly interesting when reading through the text for the first time. Before you decide which codes to use and before you start analyzing your text in categories, this technique lets you keep track of what simply seems important. There are five colors with which you can color code: green, blue, yellow, red, and magenta.

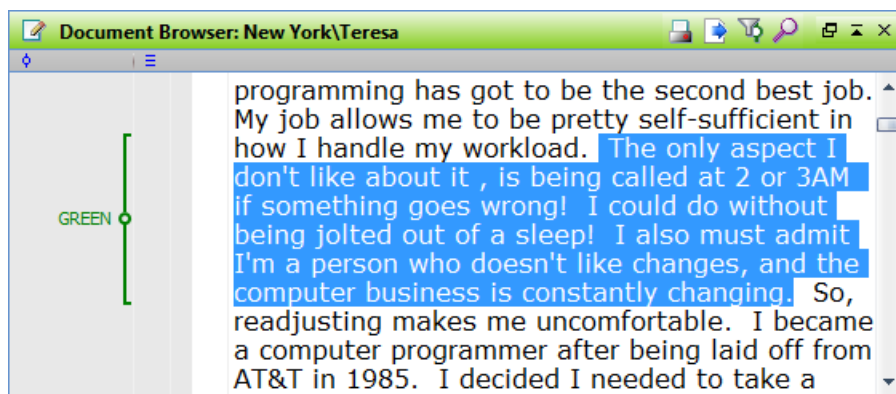
The purpose of this highlighting function is not simply to change the text's color– you could do this in Edit Mode by selecting a different font color for a text passage. Not only does the text change background color, but it is also coded with the name of the color. Thus, all the code functions are available to you when you are working with these segments later on. When going through the text a second time, it will be easier to develop your codes and categories from this basis.

To activate the toolbar, select **Highlight coding** from the **Toolbars** drop-down menu. You will then see the following toolbar with the five available colors:



"Highlight coding" toolbar with five color options

To highlight code a segment of text, you follow a similar process as with standard coding: highlight the text segment with your mouse and click on one of the five colors in the toolbar. The text segment will now be highlighted in that color, and it will be coded with a new code called green, blue, red, magenta, or yellow. You will see the new code in the "Code System" as well as in the coding column to the left of your document in the "Document Browser."

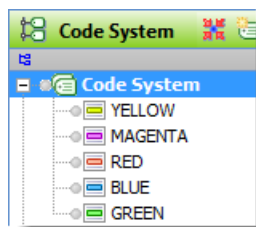


A section of text coded with "GREEN"

In practice, then, the highlight coding does much more than just change the color of the text – it is also a coding action. This means that you can later call up all of the green-highlighted segments and work with those that are most important. This lets you code more specifically once the first general coding run is complete. Retrieving all codes with a specific color coding can be done by activating all documents in the "Document System" and activating the appropriate color code in the "Code System."

If at a later point, you delete the color code in the "Code System," you are not only deleting the code. All coded segments for that code will also be deleted. In other words, all highlights of that color will be deleted from your documents.

Color codes are marked with a specific symbol in the Code System:



Symbol for a color code in the "Code System"

Note: Color codes cannot be renamed.

7.7 Coding with MAXMaps

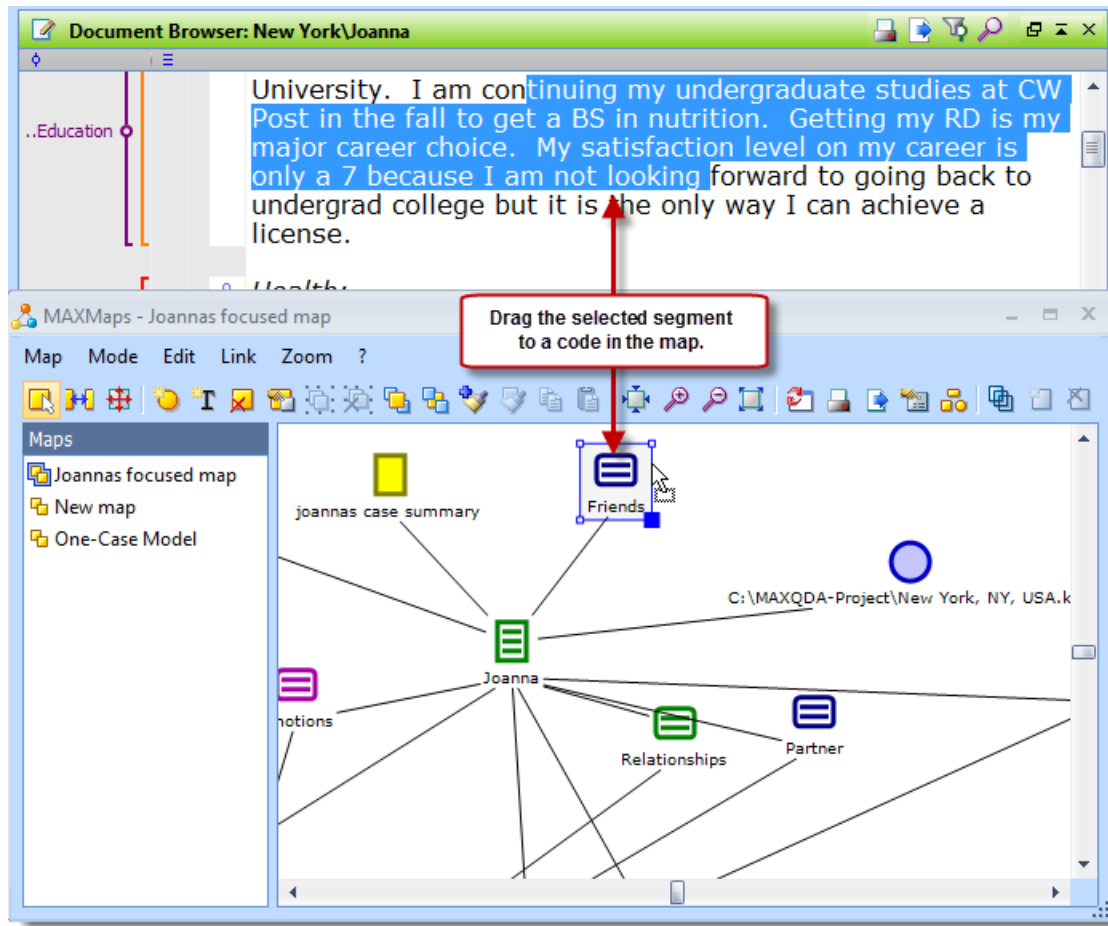
The "Code System" is organized in a hierarchical tree structure, which does not allow for multiple cross relationships between subcodes. In some cases, it may be necessary to create a non-hierarchical structure to form network relationships and organize codes in a different structure.

This is possible with MAXMaps, the mapping tool that is part of MAXQDA. Open **Visual Tools > MAXMaps** to start the tool and create a new map. Use Drag & Drop or **Alt+double-click** to copy codes from your code system to the map. Codes can be freely



arranged on the map, linked to each other with arrows or lines, and free symbols or images can be added to the map.

Coding is simple: Drag a selected segment from the “Document Browser” to a code in the map.

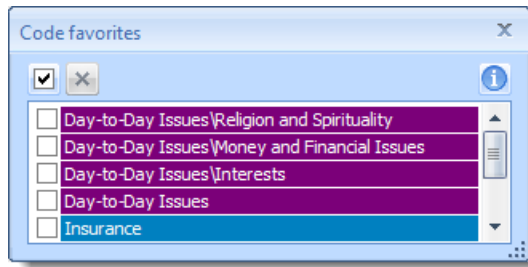


Coding using Drag & Drop on a code in a map

7.8 Coding with the Code Favorites

If you are working with an extensive “Code System,” it can be difficult to work efficiently, since it is hard to find each code quickly in the large list. The coding Quick List offers one way of working around this, but there is another option that can be helpful in certain circumstances. It allows you to also code with more than one code at once. The function is called the code favorites.

And how does it work? Simply right-click on a code and select **Add code to code favorites**. After you have added the first code, the code favorites window will appear. You can then continue to add more codes to the list in the same fashion: right-click on the code and select **Add code to code favorites**.



The list of code favorites

You can now begin to code. Simply highlight the section of the document in the “Document Browser” and click on the codes in the code favorites window that you want to assign to it. You can now see in the coding column on the left side of the “Document Browser” that the segments have been coded.

If you want to delete a code from the list, simply click on the checkbox in front of it and click on the **x** at the top of the window.

When you are finished using the code favorite window, simply close it by clicking on the **x** in the top-right corner. To re-open the window, you can either add another code (via the context menu) or select **Code favorites** from the **Codes** drop-down menu.

7.9 Emoticode: Code with Emoticons and Symbols

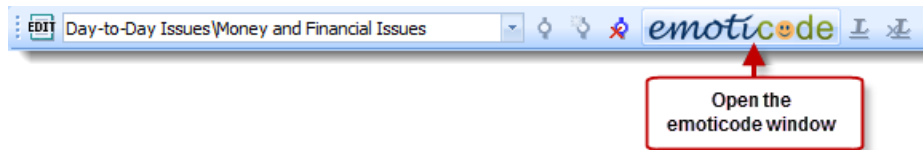
The “emoticode” function allows you to assign symbols and emoticons to text and image segments, as well as audio and video clips. It can generally be employed with the same functionality as “normal coding:” All the functions of conventional coding are supported, meaning emoticons and icons will be displayed in the overview tables of coded segments and in visualizations such as the Document Portrait.

Emoticons and Symbols

MAXQDA includes 310 emoticons and symbols, which are organized into different thematic groups. Emoji icons are widely known due to smartphone use. They include different types of smileys as well as many other symbols. Each emoticon symbol has a name, which serves as code name.

Calling up the Emoticode Window

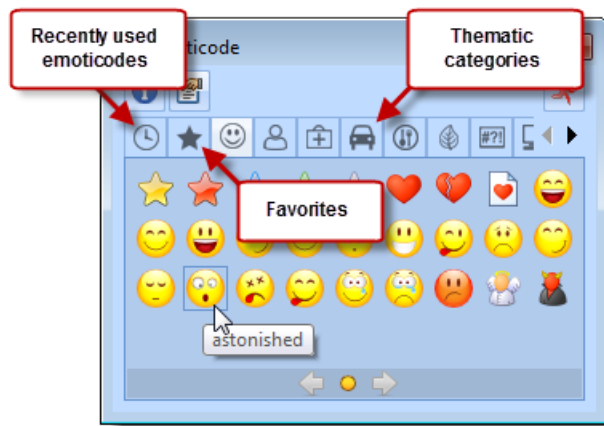
Similar to the color-coding function in MAXQDA, where segments can be highlighted and color-coded, the emoticode function must first be activated. In order to activate emoti-codes, right-click on a text or an image in the “Document Browser,” then select **Show emoti-codes**. Or, for easier access, use the corresponding button in the “Code” toolbar:



Activate emoticode function

Note: With a screen resolution of 1,024 x 768, which is standard for projectors, the emoticode icon is often reduced to a smiley after restarting MAXQDA.

After being called up, the window containing the collection of emoticons appears and can be moved anywhere on the screen.

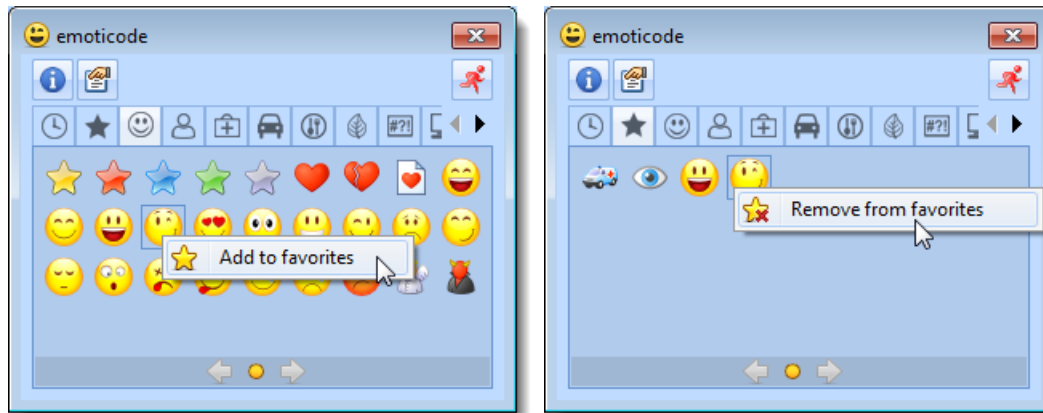


The emoticode window

Note: Each emoticon or symbol is assigned a name. This is visible when the mouse moves over an emoticon or symbol in the emoticode selection window. After coding, it will be listed as a code name in the code system.

If more symbols are included in a thematic section than can be displayed in the window, you can scroll through all symbols in the section using the blue arrows at the bottom of the window.


When you click on the clock icon, MAXQDA displays the most recently used symbols and emoticons. In addition, you can add frequently used symbols to favorites. To do so, right-click the symbol and select **Add to favorites**. The symbol is then shown additionally in the 2nd tab from the left, marked with a star. Symbols can be removed from the favorites list using the same method.

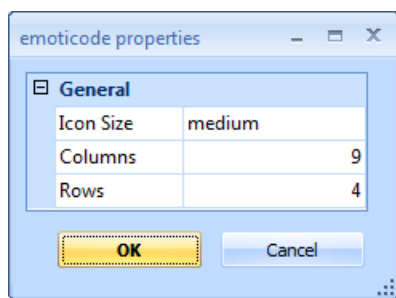


Add and remove symbols from favorites

Tip: You can customize symbol order in the Favorites tab using Drag & Drop.

Options for the emoticode Window

Window and symbol size can be customized. Click on the **Properties**  button at the top of the window.



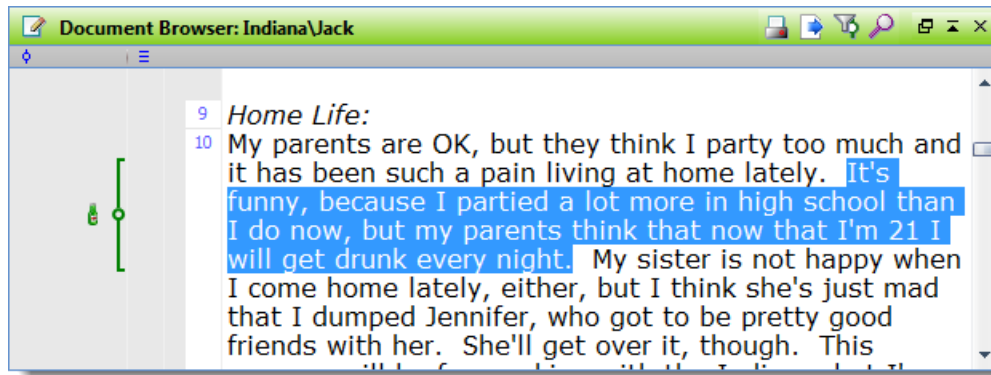
emoticode properties window

Coding with Emoticons

Coding segments with emoticons is just like color coding or coding with the toolbar. The segment is selected in the “Document Browser” or “Multimedia Browser,” then you can subsequently click on the desired symbol or emoticon in the emoticode window. If the emoticon has already been used in the existing “Code System,” the reverse is also possible – meaning the selected segment can be dragged into the code, or the code into the segment.

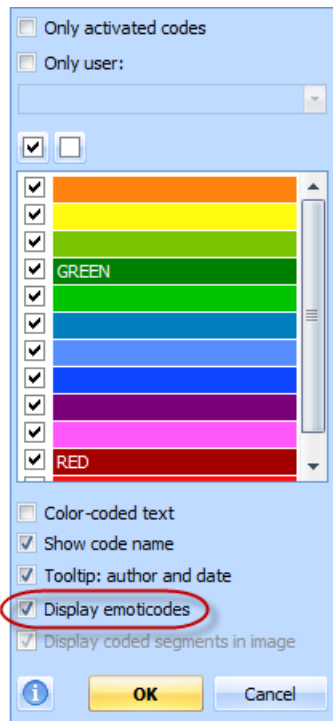
Coding Display in the “Document Browser”

In the “Document Browser,” the selected emoticon appears in the middle of the coding stripe, in the place of the code name. All segments coded with emoticons are displayed in the default coding color (green); it is not possible to assign a different color.



Coding stripe with emoticode in the "Document Browser"

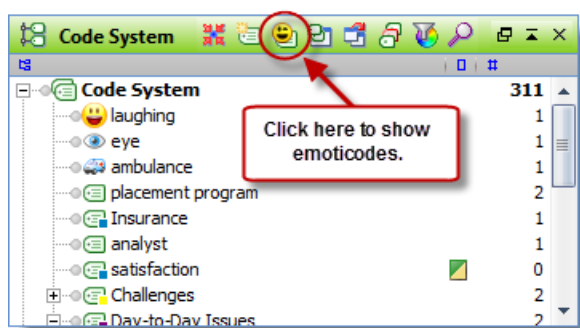
In the selection window for the displayed coding stripe (which can be called up with a right-click on the mouse in the visualization area), you can hide or show coding stripes with emoticons in the "Document Browser."



Select "Display emoticones" to emoticones on the coding stripe

emoticones in the "Code System"

When the "Code System" is displayed in the normal tree structure, the emoticones appear in the place of the usual code symbols. The display of codes in the code system can, if desired, be restricted to emoticones by clicking on the corresponding button in the window's toolbar.

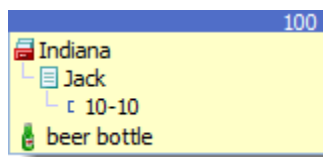


emoticon display in the "Code System"

The figure shows the emoticon symbols "laughing," "eye" and "ambulance" in the code system. The names, just like code names, can be replaced by another term.

Emoticons in the "Retrieved Segments" and "Overview of coded segments"

Emoticons, in most cases, replace code symbols, and are therefore found in the yellow-blue source list in the "Retrieved Segments." In the first column of the "Overview of coded segments" the emoticons are displayed instead of the code colors, allowing the entire table to be sorted by emoticons.



Comment	Document	Code	Begin	End	Pre
🤔	Jack	winking	18	18	year
🤔	Jack	winking	32	32	uick
😄	Jack	laughing	10	10	either
😄	Jack	laughing	13	13	on r
🍺	Jack	beer bottle	10	10	It's

Emoticons in the "Retrieved Segments" and in the "Overview of coded segments" table

Emoticons in MAXMaps and Visual Tools

In MAXMaps, the appropriate emoticon will appear in the place of the code symbol. In the Code Matrix Browser, Code Relations Browser, and Codeline, the emoticon will also be displayed in the place of the code symbol.

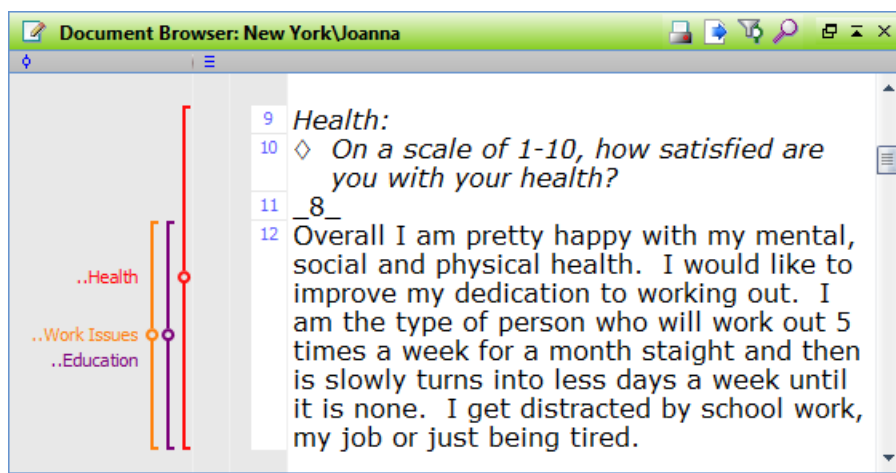
In the Document Comparison Chart each code that is present in the paragraph is represented by a colored section of the bar. Code colors, not emoticons, are used, with the color green indicating emoticons.

The Document Portrait is displayed with emoticons rather than code colors if the "Mix" feature is turned off. When the "Mix" feature is turned on, it mixes the code colors where codes overlap. In this case the color green is used to indicate emoticons.



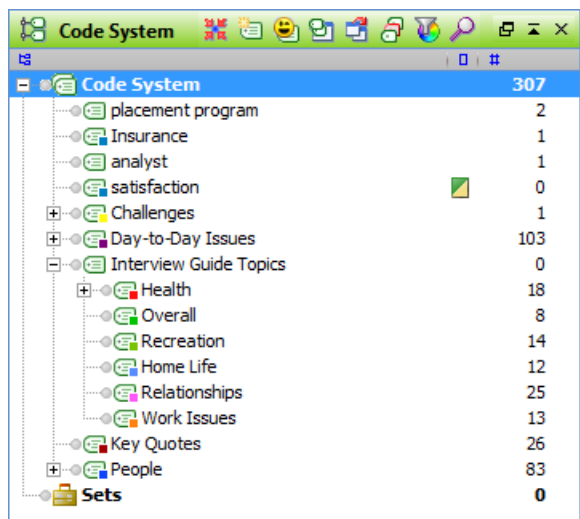
7.10 Assigning Colors

Every code and subcode can be assigned a color. This color attribute is used for the display of coding stripes in the “Document Browser” and for visualizations. The colored coding stripes make it especially easy to find certain coded segments in documents in the “Document Browser.”



Coding stripes of various colors in the Document Browser

The color is also seen in the bottom right of the icon next to each code in the “Code System.”



Codes of various colors in the Code System

The color attribute is also displayed in all MAXQDA tables that contain codes, e.g. in the “Overview of coded segments” table that is available for each document group and each document. There, the color attribute may be used as a criterion for sorting the table. This is done by clicking on the column header of the column containing the colored icons. Unless

you have changed the order of the table's columns, this column will be the first one in the table.

	Comment	Document	Code	Begin	End	Weight score	Preview
○		Teresa	Key Quotes	14	14	100	I'm currently li...
○		Teresa	People\Parents	14	14	100	I'm currently li...
○	about bowling	Teresa	placement program	17	17	100	ACTIVITIES: B...
○		Teresa	Day-to-Day Is...	18	18	100	again. If I don'...
○		Joanna	Interview Guid...	4	8	100	Career: On ...
○		Joanna	Day-to-Day Is...	8	8	100	My career now...
○		Joanna	Interview Guid...	9	12	100	Health:On a...
○		Joanna	Day-to-Day Is...	12	12	100	Overall I am pr...
○		Joanna	Interview Guid...	12	12	100	Overall I am pr...
○		Joanna	Interview Guid...	13	16	100	Home Life: ...
○		Joanna	People\Parents	16	16	100	My home life in...

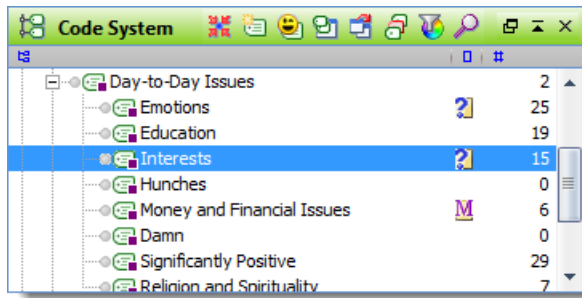
Color attribute in the first column of the "Overview of coded segments"

The color attribute plays an important role in all visual tools of MAXQDA. For instance, the Document Portrait is based completely on the colors of the codes that are assigned to a particular document. Thus, the selection of colors is an important step: colors should be assigned according to the kind of analysis that you plan to conduct. For instance, a psychologist could assign red colors to aggressive statements and green colors to friendly statements. When analyzing documents in regard to the topics mentioned a meaningful association of topics and codes is recommended. Thus, you are able to identify topics and combinations of topics with one glance. When working with focus groups, you should associate the speakers with the different colors, in order to quickly find out when a person is speaking.

7.11 Displaying Code Frequency in the "Code System"

If and how many coded segments are assigned to a specific code, can be extracted from the "Code System." The total number of segments coded with a code will be displayed after each code in the code frequency column. You can suppress the code frequency display by selecting **Project > Options**.

In the following figure, the number 15 appears after the code "Day-to-Day Issues/Interests." This indicates that up until this point, a total of 15 segments have been coded in this category.

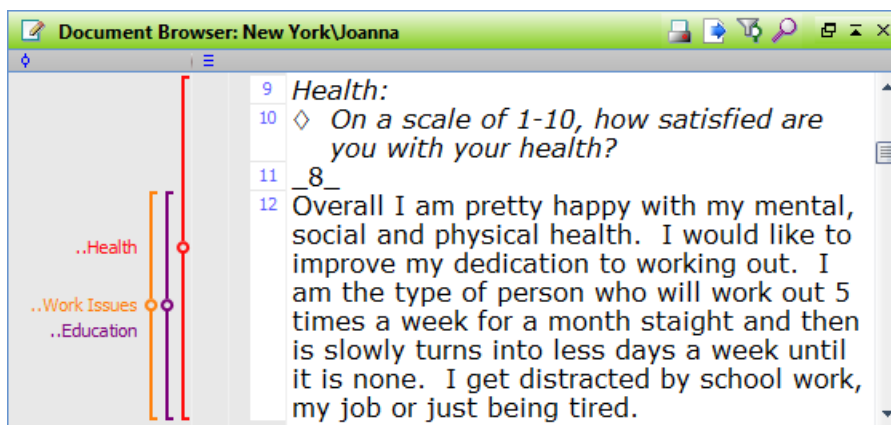


Information on the number of coded segments

Caution: If a display indicating the number of coded segments does not appear in your “Code System” the display of code frequencies is likely suppressed. To activate the display, go to **Project> Options**.

7.12 Visualization of Coded Segments in the “Document Browser”

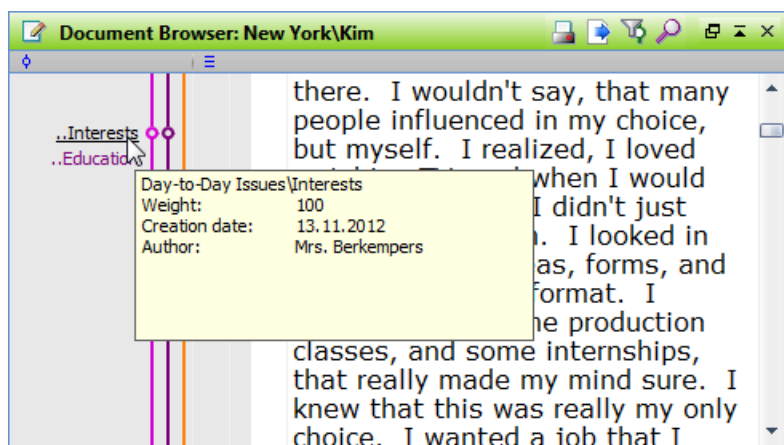
As soon as you have coded a document segment, a coding stripe appears in the gray area next to the document in the “Document Browser.” The standard color for this symbol is green, but you can choose another color for any code, causing all the code symbols for this code to appear in this color. The column for the coding stripes can be made bigger or smaller by clicking on the separator between the column headers and dragging to the right or left. Double-clicking on the column separator makes the column the optimal size. This optimal view can be impractical, though, if you have too many coded segments. In such cases, the text will be made so small that you won’t be able to read it easily.



Visualization of coding stripes on the left side of the “Document Browser”

You can also choose whether code names should be shown in the coding stripe column. By right-clicking in the gray area of the column, you will call up a window with various setting options. One of those options is to **Show code name**.

You will always be able to see the code name in the tooltip that appears if you hover your mouse over the coding stripe. The tooltip also shows you the assigned weight, the author of the coded segment, and the date that the segment was coded.

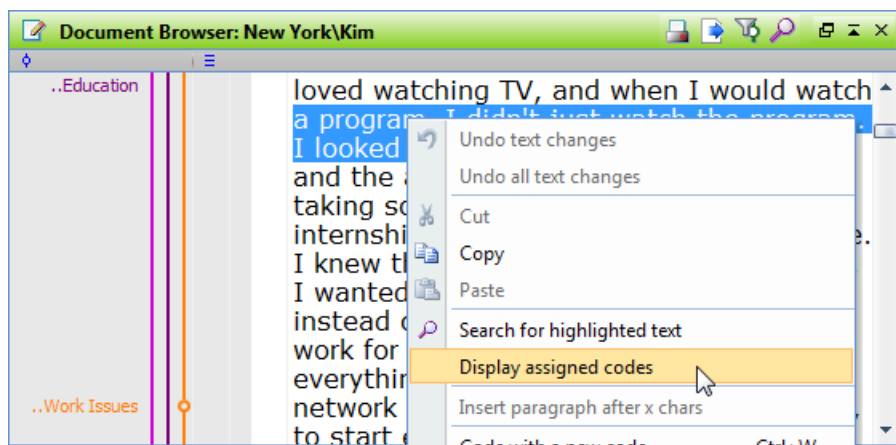


Tooltip appearing from the coding stripe

This tooltip always displays the complete code name, even if it is a subcode. This is significant, because the coding stripes in the column only show the name of the codes, rather than including the codes that they are subcodes of. In other words, the code "Interests" is a subcode of "Day-to-Day Issues," but that is only visible in the tooltip, not in the coding stripe column (see above). In the tooltip, it is shown as "Day-to-Day Issues\Interests."

If there are many coded segments, it can also be difficult to figure out exactly which code-name belongs to which coding stripe. This can be immediately identified when you move the mouse over a coding stripe, at which moment the code name will appear brighter and the code assignment will be displayed.

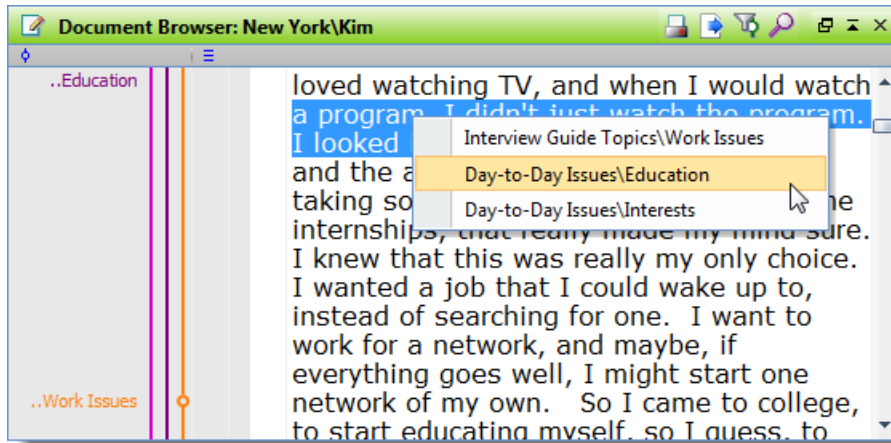
Often you will want to know which codes are assigned to a specific text or image segment. To do so, select the segment and choose **Display assigned codes** from the context menu.



"Display assigned Codes" for selected text in the context menu



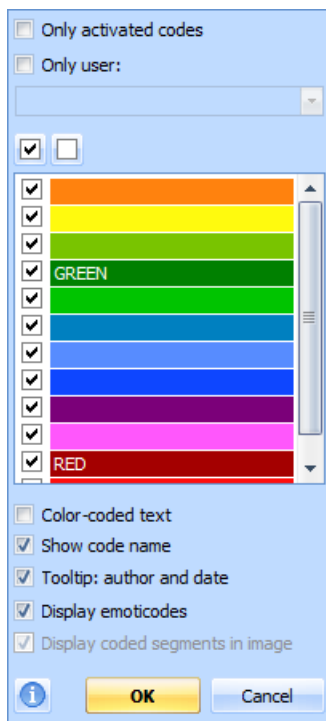
This will display a menu in which all assigned codes are listed. Click on an entry in the list to highlight the code in the “Code System.”



List of assigned codes for a segment

7.13 Coding Stripe Column Visualization Options

By right-clicking in the coding stripe column, you can call up a window with various settings for the visualization of coded segments in the coding stripe column:



Option menu for the visualization of coding stripes

Here you can adjust the following settings:


- ☐ You can choose to only visualize activated codes.
- ☐ You can choose to visualize coded segments created by certain users.
- ☐ You can choose to only visualize coded segments of a certain color.
- ☐ You can choose whether to change the text color of the text in the document to match the color of the code it was coded with.
- ☐ As mentioned before, you can choose whether the code name should be shown or not.
- ☐ Finally, you can choose whether the tooltips should include the information about the author and date of creation.

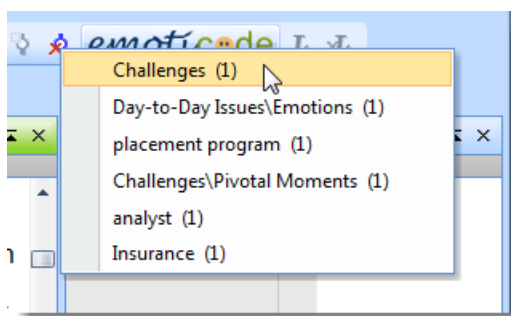
The option to switch off codes with selected colors is particularly useful when you are working in a team with independent coders. In this case, the coders should be defined as codes on the highest level of the code hierarchy and the different coders should use the same code tree organized as subcodes of the coders. Now, while the training the coders, you can hide the visualization of other coders' work. Later on, they can compare their coding with the coding done by the others.

The option to color the text according to code colors only makes sense if you do not have many overlapping codes. Overlapping codes cause the color of the text to be a mix of those overlapping codes, which can make it very difficult to interpret.

7.14 Deleting Coded Segments: The Undo Function

Clicking on the code symbol with the right mouse button causes a context menu to appear, with which the coding of the text segment can be removed. Choose **Delete** and confirm the deletion by clicking **Yes** in the confirmation window that appears.

If you need to first find the location of a coded segment in a document, deleting the code in this way may not be very convenient. A better way is to use MAXQDA's **Undo** function. In the "Code" toolbar on top of the "Document Browser" window there is an **Undo**  button. Clicking on it opens a list containing the last codes assigned.



Undo function in the "Code" toolbar

Note: The most recent coded segments are shown at the top of the list.



Through certain functions, such as “Move coded segments” or autocoding, you may code dozens or even hundreds of segments at one time. In such cases, the **Undo** function can be very helpful.

Codes can also be cleared through the “Retrieved Segments” window: Right-click on the yellow information box and select **Delete** in order to delete the selected code.

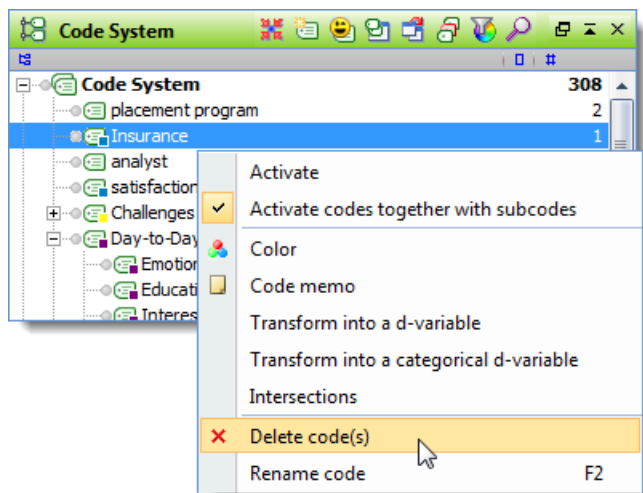
Note: If a code is deleted from the Code System, the code is removed from all segments, that were code with that code.

7.15 Deleting Codes

Deleting a code from the “Code System” is somewhat like cutting of a branch of a tree. By deleting that code, you are also deleting any subcodes, which are like smaller branches attached to the bigger one you cut off. At the same time, all coded segments that had been created with those codes are deleted.

You can delete codes in the “Code System” either in the classic tree structure view or in the table view:

- ☐ In the tree view, right-click on the code to be deleted and select **Delete code(s)** from the context menu. Alternatively, you can left-click on a code and press the **Del** key.



Deleting a code from the context menu

- ☐ Alternatively, you can switch to the table view of the “Code System” (by clicking on the **Change to table view** icon on the toolbar), then delete the code via the context menu or by pressing the **Del** key.

Attention: When deleting a code, you are also deleting all coded segments that were created with this code.

If you want to delete more than one code at a time, it is necessary to switch to the table view of the “Code System.” To do so, click on the **Change to table view** icon in the “Code System” toolbar. You can now select as many codes as you wish by clicking on them while holding the **Ctrl** key and then right-clicking and selecting **Delete code(s)** from the context menu.

7.16 Modifying Coded Segments

There are three ways to modify coded segments:

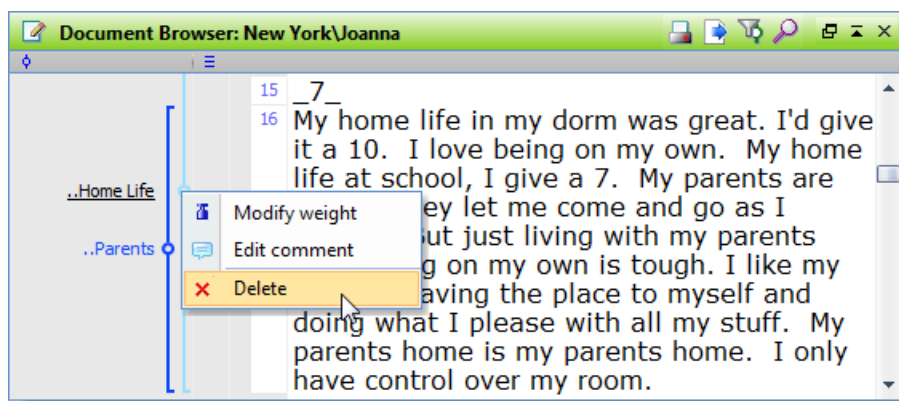
1. A code can be “un-assigned” or removed from a segment – when, for example, you assigned the code to the segment by mistake.
2. A different code can be attached in place of the other.
3. The size of the coded segment can be changed (e.g. to encompass paragraphs 5-12 instead of just 5-10).

All three of these modifications can be easily carried out in MAXQDA.

Deleting a Coded Segment

From the Document Browser:

1. Right-click on the little circle in the middle of the coding stripe in the column to the left of the document in the “Document Browser.”
2. Select **Delete** and confirm the deletion by clicking **Yes**.



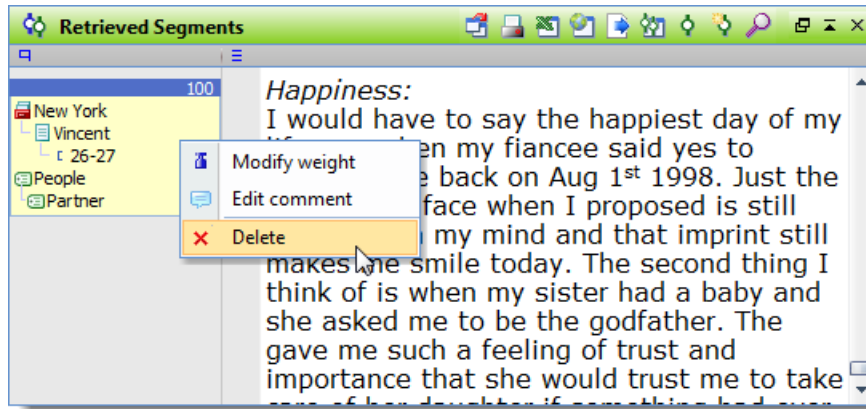
Deleting a coded segment in the “Document Browser” window

From the “Retrieved Segments” window:

1. Right-click on the yellow info box to the left of the coded segment.
2. Select **Delete** and confirm the deletion by selecting **Yes** in the confirmation box that appears.



The segment is then removed from the “Retrieved Segments” window, and the deletion can not be undone.



Deleting a coded segment in the “Retrieved Segments” window

Coding a Segment With More Than One Code

After having coded a segment, the segment remains selected. It is possible to attach more codes to the same segment by simply continuing to drag codes the selected segment or by right-clicking on the code in the “Code System” and selecting **Code** in the context menu that appears.

Another option is to highlight the document segment, activate the codes you want to code it with, and then right-clicking on one of the codes and choosing **Code with selection**. The segment will then be coded with all activated codes at once.

Replacing a Coded Segment

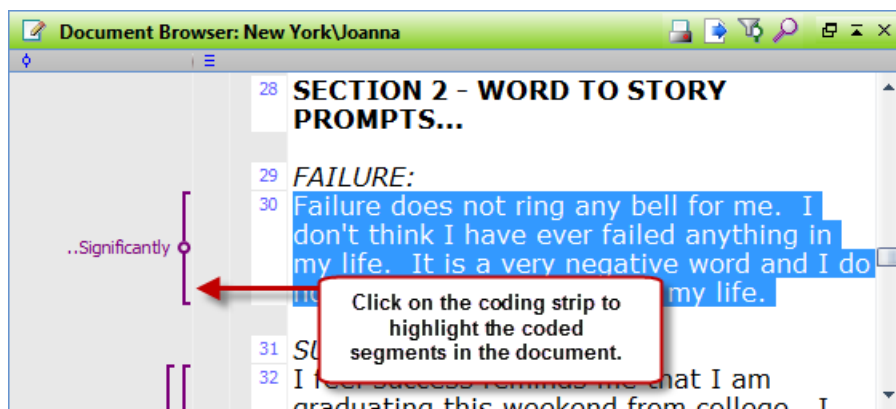
When reviewing your text analysis, you may decide that the wrong code was assigned to a text segment. Or you may decide that the “Code System” is not precise enough, so it is necessary to expand the “Code System” and distinguish between different codes. In both cases, you will need to replace one code assigned to a text with another.

1. Click on the coding stripe next to the segment with the left mouse button, thereby highlighting the document segment.
2. Assign the new code to the segment.
3. Right-click on the older coding stripe and delete it.

Editing the size of a Coded Segment

When listed independently from the original text, a coded segment may be difficult to understand because it is out of context. The segment is probably too small. To extend the segment’s boundaries, first click on the code symbol to again select the segment. Then, expand the boundaries of the highlighted text by dragging the mouse over the text to be included in the segment. Then reassign the code to the text, which you can do by simply

clicking on the code button again. The code symbol will change correspondingly. It is also possible to use this process to make the coded segment smaller.

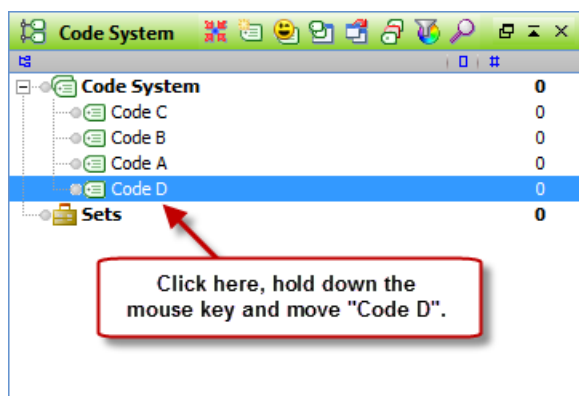


Changing the size of the Coded Segment

7.17 Moving Codes in the “Code System”

Changing the order and the structure of the “Code System” is not difficult. All codes can be moved with the mouse and the drag-and-drop function.

In the following example, the “Code System” contains four codes (C, B, A, and D).



Moving codes with the mouse

To move Code D to the top of the list, you would need to do the following:

Click on Code D and drag it in front of Code A while holding down the left mouse button, then, when a line appears, drop the code.

It is also easy to make a code a subcode of another code. If you want Code B to become a subcode of Code A, for example, you would carry out the following actions:

Click on Code B, drag it to Code A, and release as soon as Code A has a blue background. Code B is now a subcode of Code A.



Subcodes can also be sorted alphabetically by right-clicking on the code they are subcodes of and selecting **Sort subcodes**.

7.18 Copying Subcodes

In some cases, you will be setting up the same subcodes for various codes. You might, for example, have the codes "Childhood," "Teenage Years," and "Adult Life," which should each have the subcodes "Education," "Family," "Friends," and "Memorable Experiences." So that you don't have to create these four subcodes three times, you have the option of setting them up for one of the main codes, copying its subcodes, and pasting them into the other main codes. To do so, you would follow these steps:

1. Create the three main codes: "Childhood," "Teenage Years," and "Adult Life."
2. Create the four subcodes for the main code "Childhood."
3. Right-click on the **Childhood** code and select **Copy subcodes**.
4. Right-click on each of the other main codes and select **Paste subcodes**.

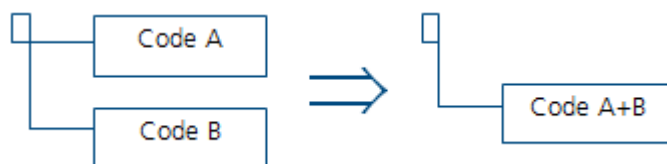
7.19 Moving Code References

If you move a code from one position in the "Code System" to another, the code references move automatically together with the code. This is like moving a drawer from one place to another in a cabinet; the drawer's contents move together.

To move a complete drawer is something other than to move only its contents. The same is true with code references. If you only want to move the code references to another code, you cannot use the procedure described above. There is another procedure that leaves the drawer in its place and merely shifts its contents.

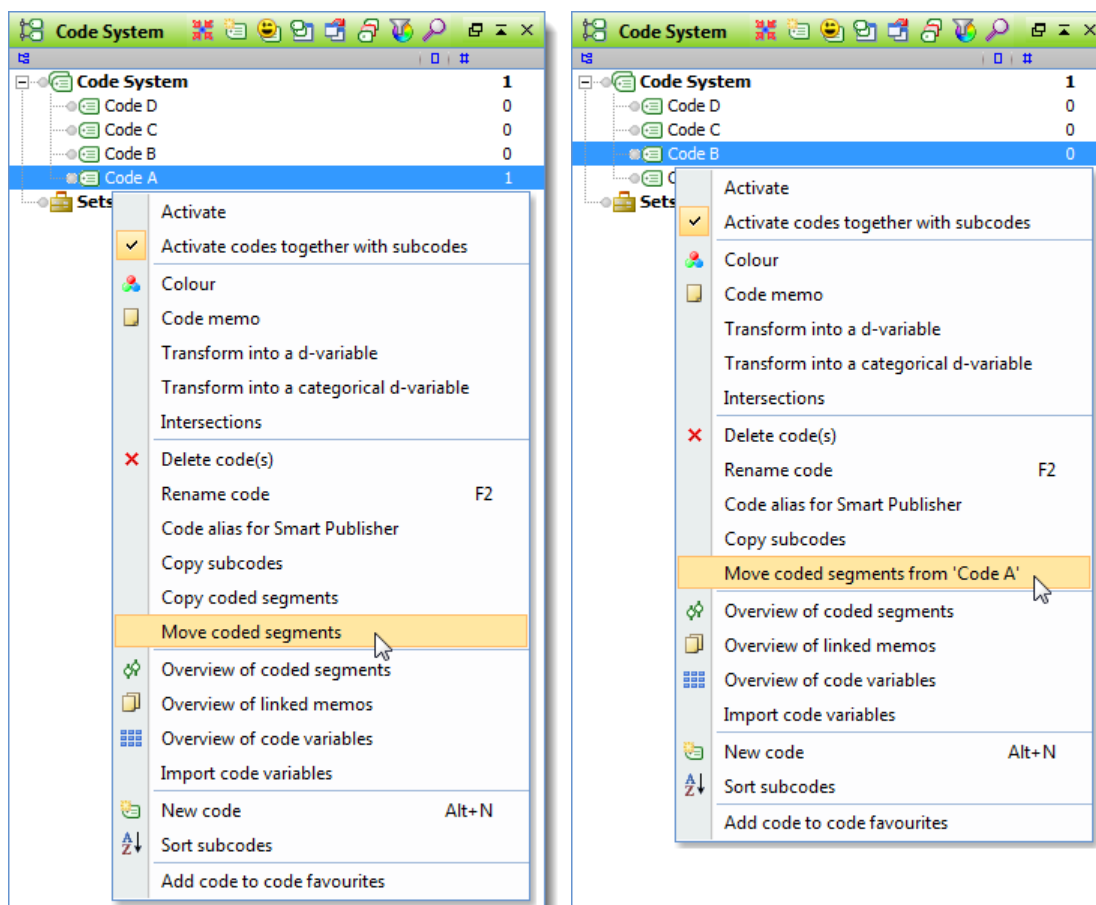
In MAXQDA, it is the **Move coded segments** option that does this job. This option is available in the context menu of the particular code from which code references are to be moved.

The following figure shows the result of moving coded segments from Code B to Code A. Actually, what takes place is the merging of Code A and Code B:



To move the coded references from Code B to Code A, follow these steps:

1. Right-click on Code B in the “Code System.”
2. Select **Move coded segments**. This transfers the code references to an internal clipboard. (Up to this point, nothing has really changed in the “Code System.” The number of coded segments displayed to the right of Code B is still the same.)
3. Right-click on Code A (the target code) and choose **Move coded segments from ‘Code B.’** MAXQDA asks you to confirm the command before executing it.



Moving coded segments

Code B remains in the “Code System” until you delete it, but the number of its immediate code references is now zero. The contents of the “drawer” have been moved to Code A.

The subcodes’ references, however, will not have been moved. Be careful when deleting Code B now, since all subcodes – if there are any – will be deleted too, along with their code references.

Tip: If you want to delete all code assignments but want to keep the code in the “Code System,” it is best to create a code named “trash” and then copy the code references to the “trash.”



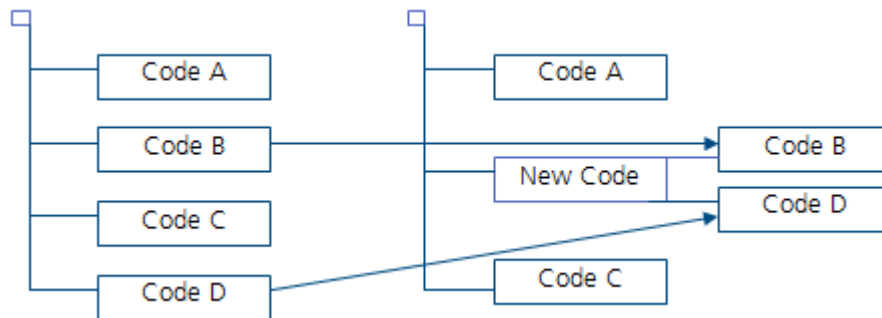
7.20 Copying Code Segments

The function “Copy coded segments” is similar to the “Move coded segments” function. The only difference is that the code references also remain in Code B – that is to say, they are duplicated. To do this, follow the steps below:

1. Move the mouse pointer to the “Code System” and right-click on the code from which references are to be copied (Code B in the example above).
2. Select **Copy coded segments** from the context menu that appears.
3. This causes the code references to be moved to an internal clipboard. (Up to this point nothing has really happened in the “Code System.” The number of coded segments displayed to the right of Code B is still the same.)
4. Now select the target code (Code A in the example above). Right-click and choose **Insert coded segments from ‘Code A.’**
5. MAXQDA then copies the code references to the selected location; no confirmation is required.

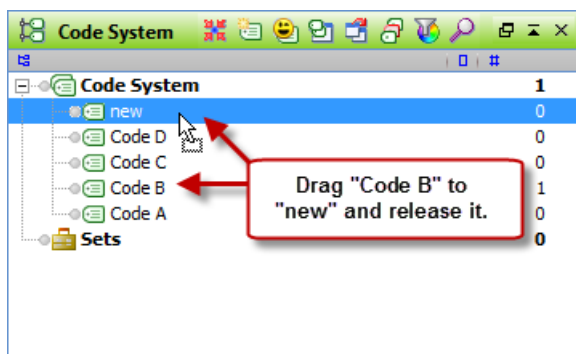
7.21 Creating a New Top-Level Code

A common procedure when working with codes is to group previously defined codes under a new, more abstract category, as shown in the next diagram:



MAXQDA’s hierarchical “Code System” makes it easy to group existing codes under new top-level codes. Reorganizing the “Code System” can be done at any time during the analysis process:

1. Create a new code at the top level of the hierarchy (**New Code** in the example above).
2. Drag Code B to New Code and release it.
3. Do the same with Code D.



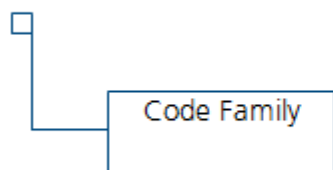
Creating a new code to hold to former codes as subcodes

7.22 Splitting up a Code

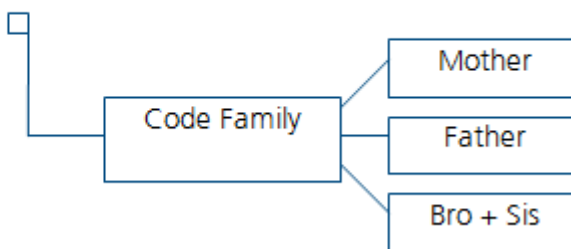
Often when working with a "Code System," it is desirable to differentiate between elements grouped under one code. In MAXQDA this corresponds to dividing a code in two or more subcodes. For example, imagine you have created a code named "Family" and have assigned document segments, in which an interviewee talks about his family, to this code. Then imagine that it becomes necessary to differentiate between "Mother," "Father," and "Brothers&Sisters."

The division of a code into subcodes can obviously not happen automatically, since you must decide which references of the code are to be placed in which subcode. You must read each coded segment and decide which of the subcodes is appropriate. In this case the subcodes will not be exclusive since a person could talk about his father and his mother in the same segment.

Starting Point

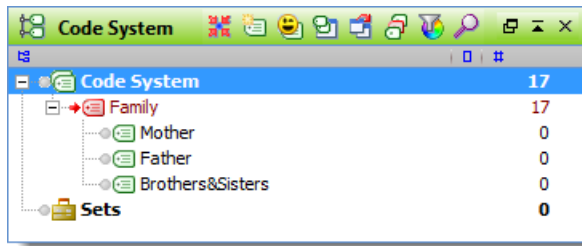


Goal



Codes can be divided as follows:

1. Activate all documents and the code "Family."
2. Create three subcodes for "Family": "Mother," "Father," and "Brothers&Sisters."



Splitting up a code

A convenient way to separate the code references into the new subcodes is to bring all the coded segments (in our example with “Family”) into the “Retrieved Segments” window. Then, beginning with the first segment, click the **information box** left of the segment for each segment. After having decided which subcode the segment belongs to, you can assign the segment to the appropriate subcode as follows:

- ☐ The easiest option: Click on the **information box** and drag it to the chosen subcode.

Tip: During this process, the segment will be additionally coded with the subcode. However, if you hold down the Alt key during this process, the code will be moved from the source code to the new code, meaning the top-level code will be deleted.

- ☐ When you click on the info box, the coded segment will also be selected in the “Document Browser.” It can now be coded as usual, for example using Drag & Drop.
- ☐ Alternative Method: Right-click on the selected subcode in the “Code System” window (i.e. “Father,” “Mother” or “Brothers&Sisters” in the example above) then select **Code** in the context menu.

When you reach the end of the list you will all have worked through all the coded segments and these will have been assigned new subcodes. But all segments will still be coded with the original code “Family” too, which is obviously not what you want. To finish the job, you have to delete these code references, which may seem tricky, since now deleting the code “Family” would also delete its subcodes – including the three subcodes that you just created.

In effect, you need to delete not the code itself but only its references. Since the command “Delete Code References” does not exist in MAXQDA’s “Code System,” you have to do a work-around to get the desired result:

1. Create a new code called “trash.”
2. Right-click on the code whose references are to be removed (in this example “family”).
3. Select **Move coded segments** from the context menu.
4. Move the mouse pointer to the code “trash,” click with the right mouse button, and select **Move coded segments from ‘Family’**.
5. Delete the code “trash.”

7.23 Importing and Exporting the “Code System”

It is possible to export an entire Code System, and import it into another MAXQDA project file. This function is especially useful as it allows you to build a "Code System" in one project, then apply it to another. In this case, importing and exporting the "Code System" eliminates the need to enter new codes.

- ❑ Right-click on the “Code System” root in the “Code System” window and select **Export Code System**.
- ❑ or, select **Codes > Export Code System** from the main menu.

The “Code System” will be converted into a specific file format with the extension MTR. You can then import the “Code System” into a new MAXQDA project with the corresponding procedure **Import Code System**.

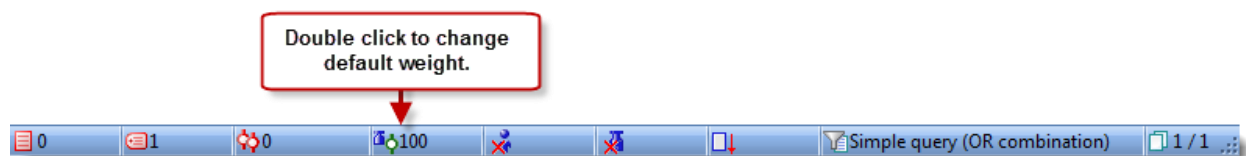
7.24 Weight Scores: Indicating Segment Relevance

When coding a document segment, you are attaching a segment of a text or image to a code in the “Document System.” MAXQDA also allows you to assign a weight score to each of these coded segments to indicate how important that particular coded segment is. It may be that certain coded segments represent a typical argument or theoretical concept that you want to be sure and hold on to. In this case, these segments are a sort of signpost.

MAXQDA allows you to indicate how important or appropriate a segment is for the code it is coded with by giving it a weight score between 0 and 100. This weight score could be described as a “fuzzy variable,” because it is not meant to give an exact numerical worth for the segment. Rather, it is intended to be a guide, so you can later sort your retrievals based on the weight assigned.

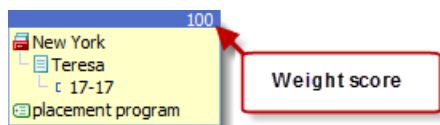
Every newly coded segment automatically receives the default weight score, which is somewhere between 0 and 100.

To see what the standard weight score is (or to change it), simply select **Options** from the **Project** drop-down menu and find the row for "Default weight." Alternatively, you can double-click on the **icon** in the status bar at the bottom of the MAXODA screen.



Changing the default weight in the status bar

The weight of a coded segment is shown in the top right of the yellow info box that appears next to each retrieved segment in the "Retrieved Segments" window.



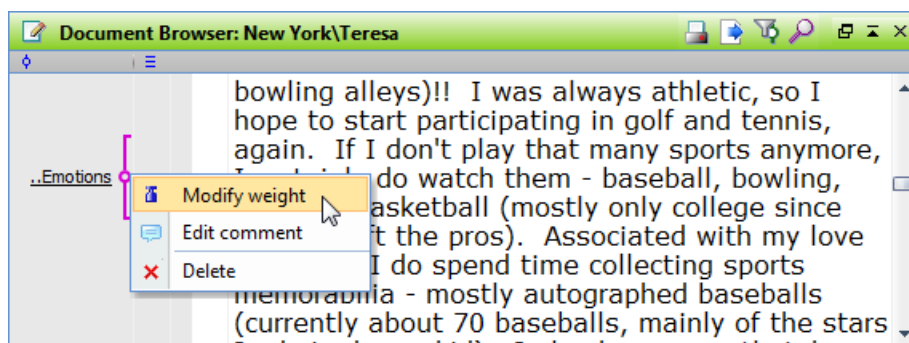
Weight score

The “Overview of coded segments” also includes the weight scores for each coded segment. This weight is saved automatically, so that you can use it later to limit the results of your segment retrievals.

Assigning Weight Scores in the Document Browser

Right-click on the coding stripe for the coded segment that you would like to alter the weight score for. You can then select **Modify weight**. You can then enter a number between 0 and 100.

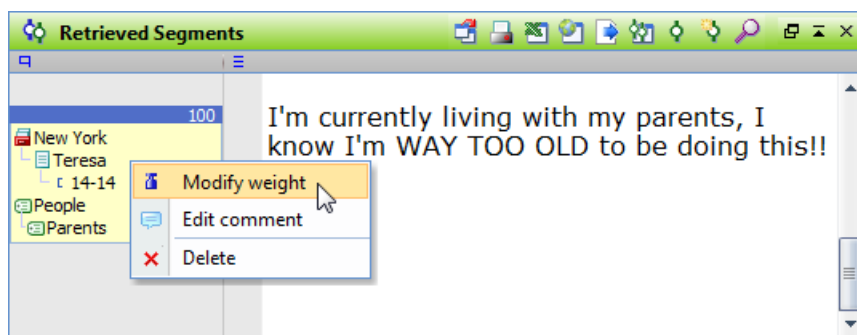
How the weight scores are used is completely up to you. You could choose to have a system where a weight score of 1 is the highest or where 100 is the highest.



Changing the weight score in the “Document Browser”

Assigning Weight Scores in the “Retrieved Segments” Window

A weight score can also be assigned and modified in the “Retrieved Segments” window. Right-clicking anywhere on the information box left of the coded segment opens the context menu, where you can select **Modify weight** and enter a number between 0 and 100.



Changing the weight score in the “Retrieved Segments” window

You will be able to see the newly-entered weight score in the top right of the yellow info box directly after you make the change.



Updated weight score

Changing Weight Score in the “Overview of coded segments”

In the “Overview of coded segments” table, you will find a column for the weight score of each coded segment. By double-clicking on a cell in the column, you will be able to enter a new weight between 0 and 100.

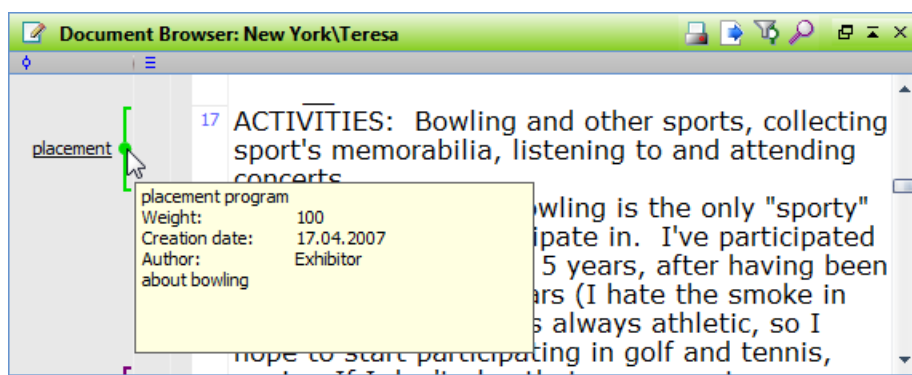
7.25 Creating Comments for Coded Segments

You have the option of creating a short comment (maximum of 127 characters) for each of your coded segments. This might be an overview of the coded segment or a comment about its significance for your analysis. These comments are then shown in the tooltip that appears when you hover the mouse over a coding stripe.

To create a comment for a coded segment, follow these steps:

- ☐ Double-click on the little **circle** in the middle of the coding stripe,
- ☐ double-click on the yellow **info box** next to a coded segment in the “Retrieved Segments” window, or
- ☐ enter your comment directly into the appropriate row of the “Comment” column in the “Overview of coded segments.”

You can easily see if a comment has been written for a coded segment when you look at the code symbol. Normally the inner part of the little square is white in color, independent of the color of the code symbol. When a comment is attached, the inner square appears in the same color as the outer line of the symbol.



A coded segment comment shown in the tooltip when hovering over the circle in the middle of a coding stripe



If you import coded segments into MAXMaps, the mapping tool of MAXQDA, the comments are used as labels. Thus, with regard to the creation of maps and models in later stages of your analysis, writing meaningful comments can be very important.

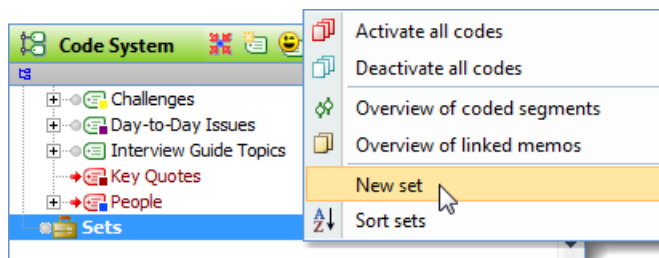
Finding your Coded Segment Comments

As long as you haven't changed the standard view, you can find all of your code comments in the "Overview of coded segments" table in the second column. You can also insert new comments and delete/change old ones from this view. By right-clicking on the column header, you will have the option of clicking on the **Search** function. You can then start typing the first word in the comment you are looking for. If you want to search for a word that appears somewhere in the comment, not necessarily at the beginning, you can simply start the search string with the "*" symbol.

7.26 Creating Code Sets

With MAXQDA, temporary combinations of codes can be saved as code sets, permitting the user to group the same code in different ways, or to group frequently used codes in a hierarchical tree structure for increased accessibility. The code sets are linked only to existing codes, meaning that the removal of a code from a set has no further consequences.

To create a new code set, **right-click** on the word "Set" in the Code System, then select **New set**.



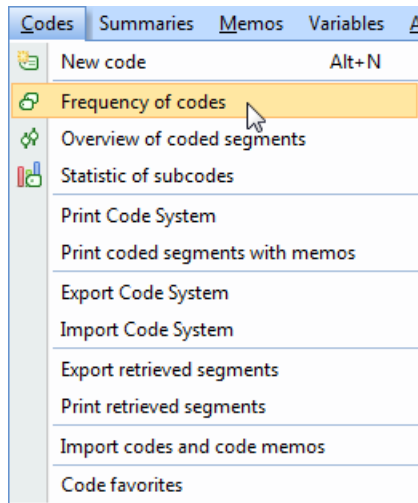
Create a new code set in the "Code System"

Now you can drag and drop selected codes into the new set using the mouse

Tip: If you activate codes by holding down the Ctrl key before you create a new code set MAXQDA places the activated codes directly into the new code set.

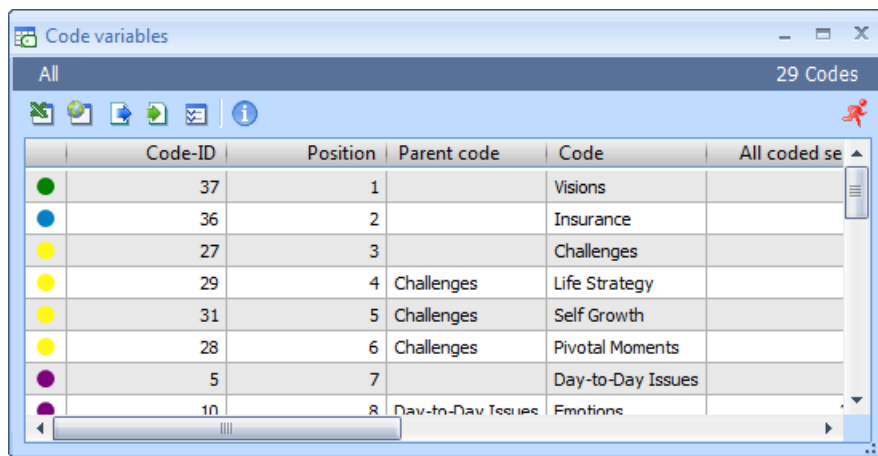
7.27 Frequency of Codes

It might be of interest to take a look at how many times each code was used. This function is called **Frequency of codes** and can be found in the **Codes** drop-down menu.



Opening the Frequency of codes in the Codes menu

The following table is opened. It has as many rows as there are codes and subcodes in the "Code System." The column Code-ID contains program-internal sequential IDs given to all codes, the column Position shows the actual position in the "Code System," counting from the root of the "Code System."



	Code-ID	Position	Parent code	Code	All coded segments
●	37	1		Visions	
●	36	2		Insurance	
●	27	3		Challenges	
●	29	4	Challenges	Life Strategy	
●	31	5	Challenges	Self Growth	
●	28	6	Challenges	Pivotal Moments	
●	5	7		Day-to-Day Issues	
●	10	8	Day-to-Day Issues	Emotions	

Frequency of codes

The other columns consist of:

- ☐ **All coded segments** – Number of segments coded with this code (throughout the whole project).
- ☐ **Activated coded segments** – Number of segments coded with this code in current activated documents (code needs to be activated).
- ☐ **All coded segments %** – Relative frequency of "All coded segments."
- ☐ **Activated coded segments %** – Relative frequency of "Activated coded segments."
- ☐ **Documents** – Number of documents in which the code appears



Right-clicking a row opens a context menu with various options, you can open the **Overview of coded segments** or **Overview of linked memos**, for example. You can also change the color attribute of a code from this menu.

To show the frequency of codes for specific documents or document groups, they have to be activated. You can do this while the table is opened, doing so will change the values of **Activated coded segments** on-the-fly.

code	Code	All coded segments	Activated coded segments	Author
	Day-to-Day Issues	2	0	
Day Issues	Emotions	25	14	
Day Issues	Education	19	9	
Day Issues	Interests	15	9	
Day Issues	Hunches	0	0	
Day Issues	Money and Fin...	6	5	
Day Issues	Damn	0	0	
Day Issues	Religion and S...	7	1	

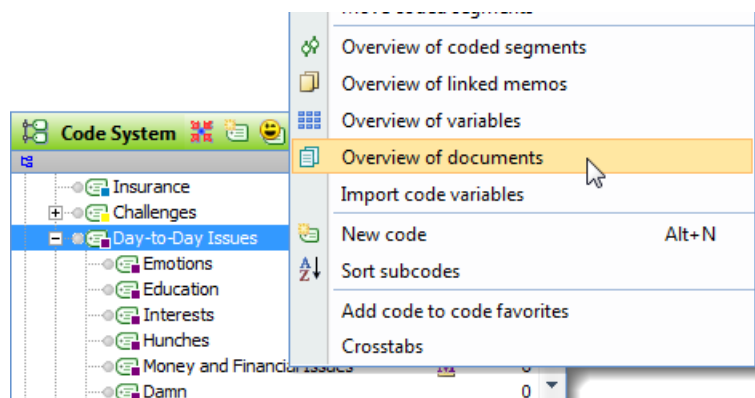
The number of segments coded with code Emotions

You have the option to export the table in various formats:

- ☐ As an Excel table in XLS/X format.
- ☐ In TXT tab-delimited format.
- ☐ In HTML table format.
- ☐ You can also simply highlight all or sections of the table, copy it to the Windows clipboard with **Ctrl+C**, and paste it into another program (e.g. Microsoft Word).

7.28 The „Overview of Documents“ for a Code

To answer the question in which documents or document groups a certain code was used, MAXQDA gives you the option to use the “Overview of documents.” To show this overview, right-click on a code and choose **Overview of documents** from the context menu.



The "Overview of documents" in the context menu




A tabular list of all documents that have segments coded with the chosen code will open. In the following example, the code "Day-to-Day Issues\Emotions" was used in ten documents and two different document groups. The column "Number of coded segments" shows how many coded segments were found in each document.


 A screenshot of the 'Overview of documents' window. The window title is 'Overview of documents'. Below the title bar, there is a header bar with 'Day-to-Day Issues\Emotions' and '10 Documents'. Below the header bar is a toolbar with icons for file operations and information. The main area contains a table with three columns: 'Document group', 'Document name', and 'Number of coded segments'. The table lists 10 documents, grouped by 'Document group' (Indiana and New York). The 'Number of coded segments' column shows the count for each document.

Document group	Document name	Number of coded segments
Indiana	Kelly	3
Indiana	Grace	3
Indiana	Jack	1
New York	Jon	4
New York	Kim	2
New York	Joanna	2
New York	George	2
New York	Vincent	3
New York	Mary	4
New York	Teresa	1

"Overview of documents" for a code

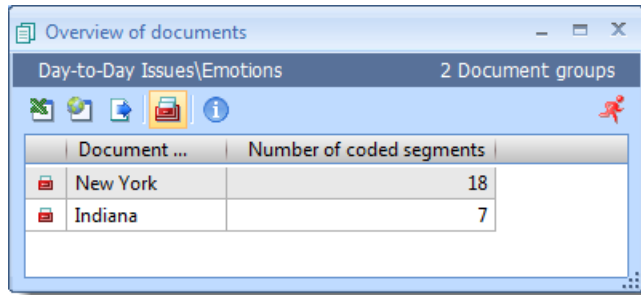
You have the following options:

-  **Show as Excel table** – saves and opens a table in XLS/X format.
-  **Show as HTML table** – saves and opens a table in HTML format.
-  **Export** – opens a dialog window, so you can save the table in XLS/X, HTML, or tab-delimited text format.

The **Aggregate to document groups**  button allows you to reduce the visualization to document groups that segments with the chosen code were found in. Taking the exa-



mple above, after clicking the button, the table will consist of two rows with the document groups “New York” and “Indiana.” The number of coded segments will be added up:



The screenshot shows a window titled "Overview of documents" with a toolbar containing icons for file operations and an information icon. Below the toolbar is a table with two columns: "Document ..." and "Number of coded segments". The table contains two rows of data.

Document ...	Number of coded segments
New York	18
Indiana	7

Aggregating to document groups



8 Intercoder Agreement

8.1 About Reliability

When assigning codes to document segments, it is recommended that certain criteria be set. You assume, for example, that coding is not arbitrary or random, but rather that a certain level of reliability will be reached. The “Intercoder agreement” function makes it possible to compare two people coding the same document independently of each other. In qualitative research, the purpose of comparing independent coders is to discuss the differences, figure out why they occurred, and learn from the differences in order to improve coding agreement in the future. In other words, the actual percentage of agreement is not the most important aspect of the tool. This percentage is, however, provided by MAXQDA.

8.2 The Intercoder Reliability Problem in Qualitative Research

It is always the goal of qualitative analysts to achieve as high a level of agreement as possible between independent coders. It is not, however, focused on getting to a standard coefficient that is statistically necessary as in quantitative research. Rather, the focus is on a practical improvement of the coding quality. For this reason, one doesn’t focus on the coefficient or percentage of agreement. Instead, qualitative researchers want to address and edit the coded segments that do not agree, so that they can move on with more accurately coded material.

The Intercoder Agreement tool is set up to compare and contrast a single document coded by two independent coders, highlighting the areas where the two researchers’ coded segments align and do not align. It is then possible for these two coders (or a larger research team) to decide which coding variation in each situation is most accurate.

8.3 The Agreement Testing Concept in MAXQDA

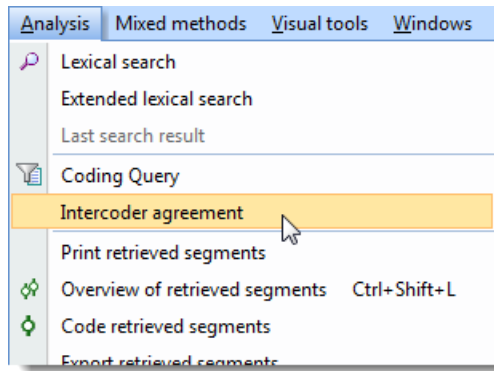
The Intercoder Agreement function in MAXQDA works as follows:

1. Two people code the identical text independently of each other with the agreed upon codes and code definitions. This can be done on the same computer or on different computers. The most important thing is that the two coders can not see how the other has coded. It makes sense to name each document in a way that makes it clear, who has coded which (e.g. “Interview1_Michael” and Interview1_Jessica.”



2. To test the two documents, they must both be in the same MAXQDA project. If they were coded on different computers, the two projects can be merged. It is also possible to use the teamwork functions to only exchange codes, memos, and variables.

You can now start the **Intercoder Agreement** function by selecting it from the **Analysis** drop-down menu.



Starting the Intercoder Agreement function via the Analysis menu

Caution: If you only want to check the agreement of certain codes, activate those codes before starting the test.

1. Select the first coder's document from the "Document 1" menu and the second coder's document from the "Document 2" menu.
2. If you only want to test the activated codes, you can check the box at the bottom left of the window next to "Only for activated codes?"
3. You can then choose between three different analysis criteria for the agreement test:

Variation 1 – Code existence in the document

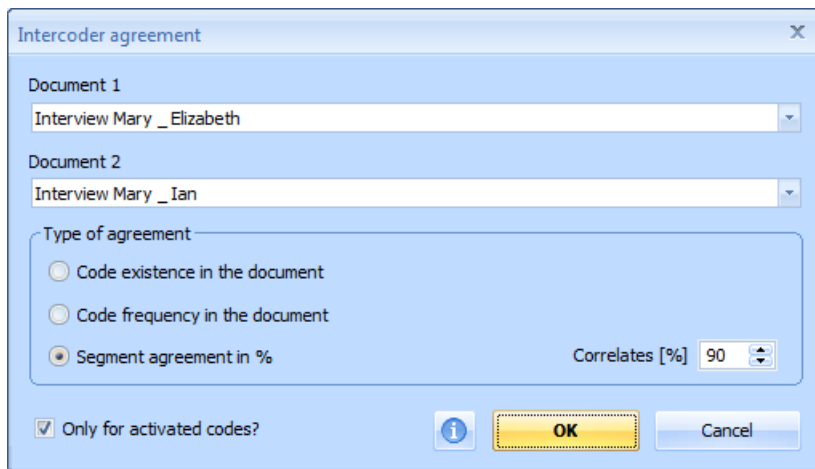
The criterion in this variation is the presence of each code in the document, meaning whether or not each code is found at least once in the document. This variation is most appropriate when the document is short, and there are many codes in the "Code System."

Variation 2 – Code frequency in the document

The criterion in this variation is the number of times a code appears in each coder's version of the document.

Variation 3 – Segment agreement in percent

In this variation, the agreement of each individual coded segment is measured. This is the most precise criterion and is used most often in qualitative research. You can set the percentage of agreement that is required in each segment for it to be considered in agreement (correlation). The tool takes each segment and evaluates the level of agreement between the two documents.

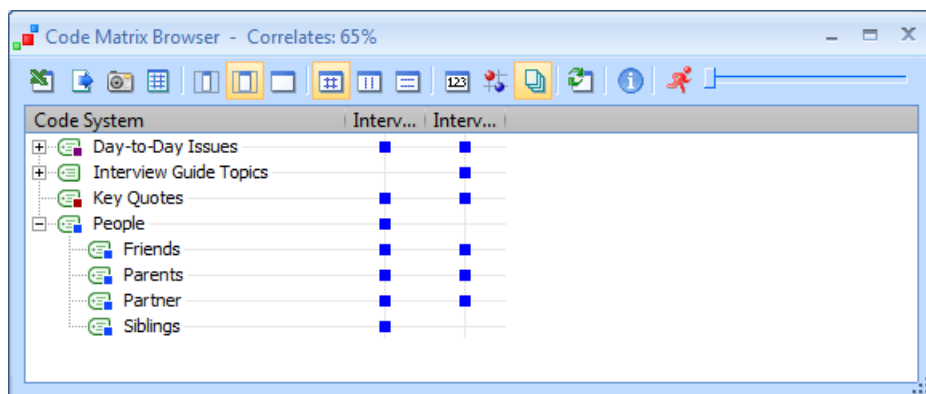


Testing intercoder agreement based on segment agreement in percent

The screenshot above shows the InterCoder Agreement window, which shows that “Interview Mary _ Elizabeth” will be compared with “Interview Mary _ Ian.” The third variation is selected, meaning agreement will be tested at the segment level, and the required agreement percentage to be considered “in agreement” or “correlating” is 90.

Results for Variation 1

The Code Matrix Browser window will appear only for the two documents that are being compared. The Code Matrix Browser is set to visualize whether or not each of the codes exists in the two documents. If the code exists, a blue circle or square will be shown in that document’s column.



Testing the existence of codes in two documents

The screenshot shows the results. Codes such as “Day-to-Day Issues” and “Key Quotes” exist in both of the documents, but the code “Interview Guide Topics” only exists in the document coded by Ian.

Clicking on one of the **blue symbols** selects the corresponding document in the “Document Browser” and the corresponding code in the “Code System.” Double-clicking on the **symbol** opens the document, highlighting the coded segment.



At the top of the results window, you can see the percentage of agreement. In this case, there is a correlation of 65%.

Results for Variation 2

The results for the second variation are also shown in the Code Matrix Browser for the two documents to be compared. Results can be viewed either as symbols or as numbers. It is then fairly easy to see where there is agreement between the documents. The correlation percentage is shown again in at the top of the results window. For each code, the number of times it appears in each document is compared. If the number is the same, there is agreement. If the number is not the same, there is disagreement. It makes no difference in this case whether the difference between the two numbers is 1 or 100.

Tip: MAXQDA calculates Intercode Agreement for the first two variations as follows:

% Agreement

= # of agreements / (# of agreements + # of non-agreements)

= # of agreements / # of rows

Results for Variation 3

This is the most complication variation, since intercoder agreement is tested on the segment level. If the first document has 12 coded segments and the second document has 14, there will be 26 tests carried out and presented in 26 rows of a table.

It is necessary to decide how similar the coded segments must be to be considered in agreement. This is measured in percent and can be set in the bottom right of the Intercode Agreement window. The default is set at 90%.

Two results tables are created: the code-specific results table and the detailed agreement table.

a) Code-Specific Results

Code	Correlates	Doesn't corr...	Total	Percent
People\Friends	8	0	8	100,00
People\Parents	2	1	3	66,00
People\Partner	6	0	6	100,00
People\Siblings	0	1	1	0,00
<Total>	42	14	56	75,00

The Intercode Reliability results for the individual codes

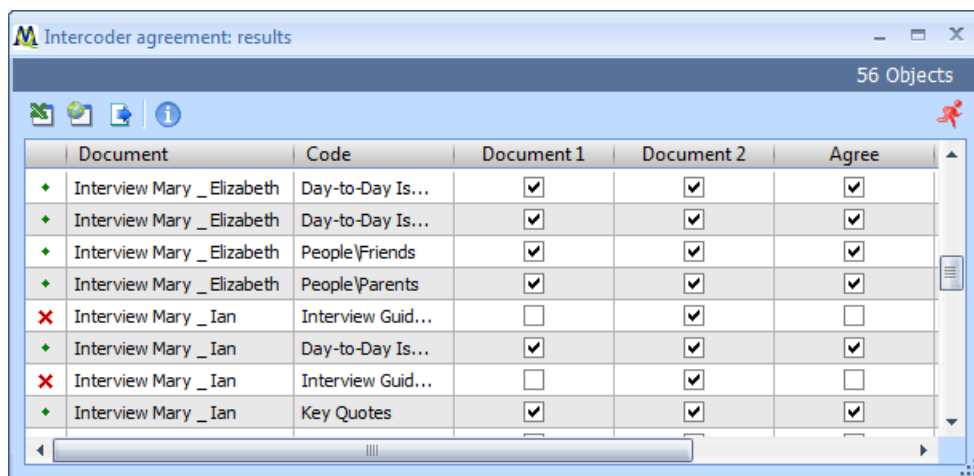
This table is made up of one row for each code that was included in the test. It shows the level of correlation between the two coders for each code. This can make clear, for example, if certain codes are in disagreement more than others. Every code is shown in a row

with the number of times its use in the first document correlated with the use of the code in the second document, the number of times they did not correlate, and the total percentage of correlation.

b) Detailed Agreement Table

The second results table allows you to see exactly which coder coded which segment and whether the coded segments correlate. A red “x” in the first column shows that the coded segments do not agree. Clicking on the column header sorts the rows, showing all the non-correlating segments first, so the coders can analyze and discuss each of them step-by-step.

By double-clicking on the **box** in the “Document 1” column, you can open that document and call up the exact document segment in question in the “Document Browser.” Double-clicking on the square in the “Document 2” column brings up the segment in the second document in a new tab, showing the place where the correlating (or non-correlating) coded segment is. You can now very easily switch back and forth between the documents in the two tabs to analyze which of the coded segment variations is the most accurate.



The screenshot shows a software window titled "Intercoder agreement: results" with a status bar indicating "56 Objects". The window contains a table with the following columns: Document, Code, Document 1, Document 2, and Agree. The table lists several rows of coded segments. The first four rows show agreement (checked boxes in both Document 1 and Document 2 columns, and a green diamond in the Agree column). The next three rows show disagreement (a red 'X' in the first column, an unchecked box in the Document 1 column, and a checked box in the Document 2 column, with an empty Agree column). The final row shows agreement again.

Document	Code	Document 1	Document 2	Agree
Interview Mary _ Elizabeth	Day-to-Day Is...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interview Mary _ Elizabeth	Day-to-Day Is...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interview Mary _ Elizabeth	People\Friends	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interview Mary _ Elizabeth	People\Parents	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interview Mary _ Ian	Interview Guid...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Interview Mary _ Ian	Day-to-Day Is...	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Interview Mary _ Ian	Interview Guid...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Interview Mary _ Ian	Key Quotes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Results table for all coded segments



9 Memos: Managing Your Ideas

9.1 About Memos

MAXQDA makes it possible for you to create “Post-It”-like notes with your ideas, comments, etc. and to attach them to document segments, documents, document groups, images, or codes. These notes are called memos in MAXQDA. These memos can have various functions: they are commonly used, for example, as an integral part of Glaser and Strauss’s *Grounded Theory* analysis method. You can also differentiate between various types of memos within MAXQDA that then have different roles in your analysis. It is important to recognize the difference between memos and documents: documents are analyzed and coded, but they are usually not changed radically once the analysis has begun.

Memos, on the other hand, are a dynamic form of text. They are created by the user and can be modified and integrated at any time during the analysis process.

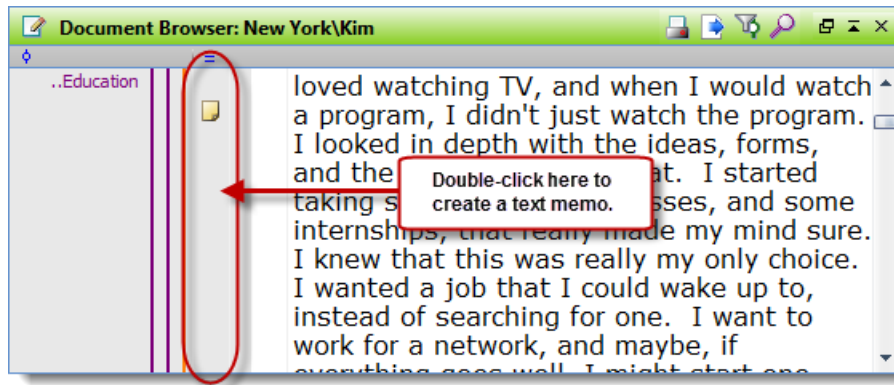
In MAXQDA memos can be attached to

- ☐ documents
- ☐ document groups
- ☐ document segments
- ☐ images
- ☐ audio and video files and
- ☐ codes.

There is also the option of creating a “free memo,” which is not attached to anything other than the project. These free memos also come out of *Grounded Theory*, which has memos without a any concrete connection to a part of the data.

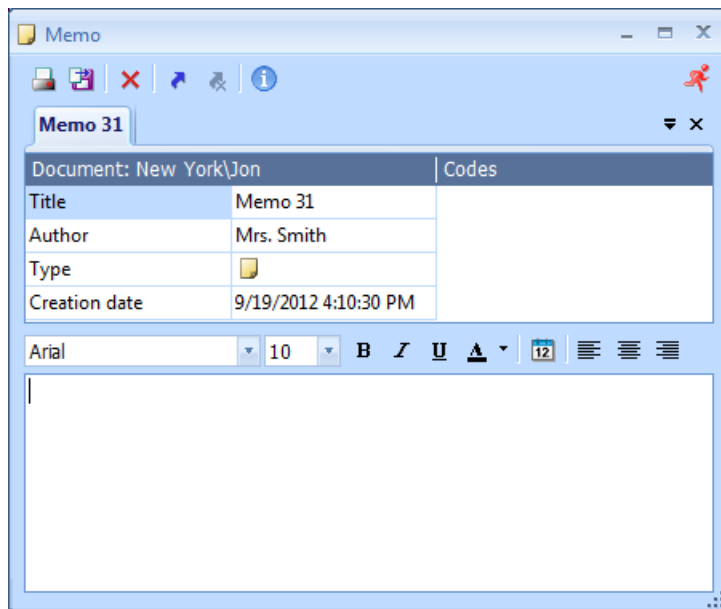
9.2 Memos Attached to Document Segments or Images

Document segment memos can be attached to any line of a document viewed in the “Document Browser.” To create a new memo, double-click in the memo column just to the left of the paragraph numbers in the “Document Browser” in the line that you want to create the memo.



Creating a new memo

You will then see the memo window:



The memo window

You can now enter a title for the memo, so that you can easily find it later in the Memo Manager.

The memo title also appears in the tooltip that appears when you hover the mouse over the memo symbol in the Document Browser.

When creating a memo, you can simply move from one field to the next, entering all the information that is required. MAXQDA automatically inserts the currently logged in user as the "Author," so that you can later find all memos by author. You also have the option, though, of changing the name in this field.

The memo's "Creation date" is also inserted automatically and appears in the top right of the memo tooltip when you hover over the memo symbol.




Every memo can be given the standard yellow “Post-It”-style symbol or one of the 10 other available symbols. These options allow you to indicate what type of memo it is. The following visualizations are available:




Memo visualization options

Choosing different visualizations for differing types of memos is up to each user. Those using *Grounded Theory*, for example, might choose to use the visualization with a “T” to represent theoretical memos, the visualization with an “M” for method memos, etc.

You can also link each memo to codes from the “Code System.”

The actual memo can be typed into the large text field at the bottom of the memo window. Memos can be edited in Rich Text Format, meaning you can set the font style and size; use underline, italics, and bold; and change alignment options. You can also keep track of your additions to the memo by clicking the  symbol, which automatically inserts a date and time stamp. If you want to insert a section of text from another document, you can simply copy it and paste it into the memo field. You can also simply highlight the text and drag it in.

When you are finished with the memo, you can close the window by clicking on the **x** in the upper right hand corner or by clicking on the  symbol. The memo will now be visualized in the memo column in the “Document Browser.”

The actual memo text can be as much as 64 KB, which is about 20-30 pages of text. There is no limit to the number of memos you can create in each document. You should remember, however, that when you open a document in the “Document Browser,” the memos are opened as well. If you have 1,000 memos in one document, this document won’t open as fast as one without any memos.

Attention: Document segment memos are assigned to a specific paragraph number. If you delete this paragraph of text while in Edit Mode, however, the memo will not be deleted. Instead, it will be attached to the new paragraph next to it. The memo is not deleted in order to avoid any accidental deletions of important notes that you have made.

Tip: Memos can be moved from one paragraph to another in the “Document Browser” via drag and drop, but must remain in the memo column.

9.3 The Memo Window and Toolbar

Wherever you see a memo, you can double-click on it to open it. In the toolbar at the top of the memo window, you have the following functions:



Print memo



Export memo as an RTF file



Delete memo

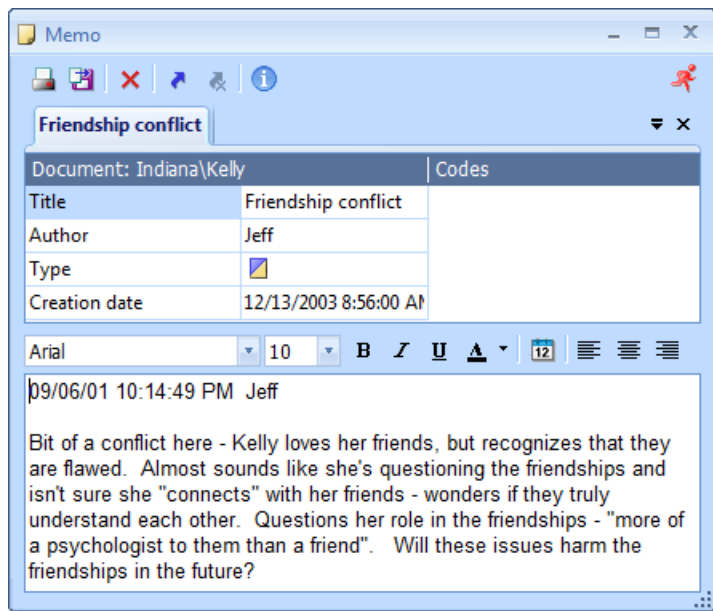


Assign a code from the code quick list



Delete code assignment

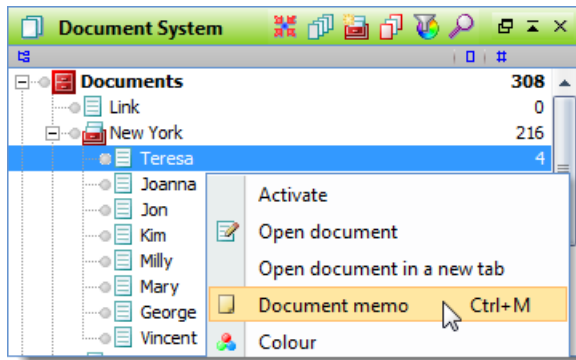
If you double-click on several codes in a row, they will be opened in different tabs within the memo window. You will probably recognize the tab system from your internet browser – it allows you to have various documents (in this case memos) open at the same time and quickly switch between them. Clicking on the x symbol in the tab row closes that tab.



The memo window

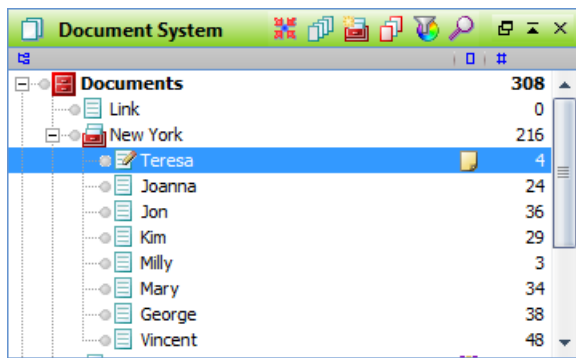
9.4 Creating Document Memos in the “Document System”

Memos can also be attached to aspects of the “Document System.” Right-click on the name of the “Documents” icon, a document group, or a document, and select **Memo**. The memo dialog box appears in its usual form.



Creating a memo for a document from the context menu

Once created, the memo icon will appear next to the entry in the “Document System” and can be opened and modified by double-clicking on it. You can also create a memo with the shortcut **Ctrl+M** when a document or document group is selected.

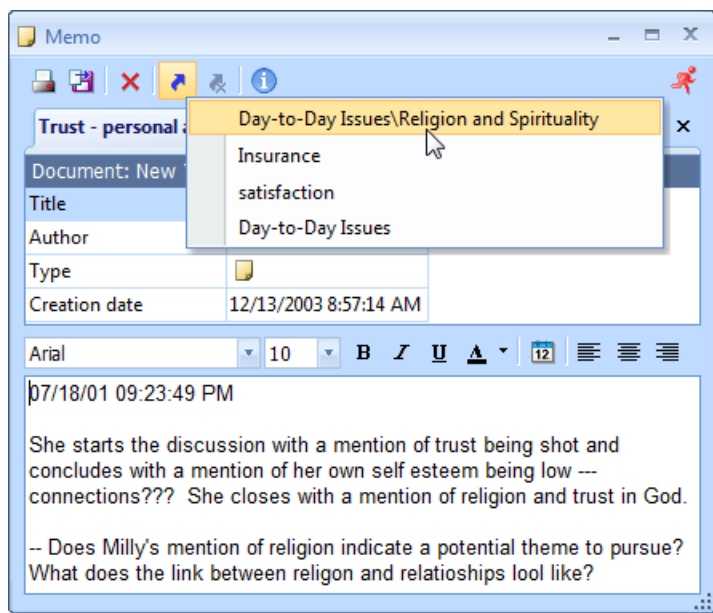


Visualization of a memo in the Document System

A memo attached to the “Documents” icon can be used as a memo or description of the entire project. The memos for each document could be used for overviews of those documents. You can also see the first few lines of a memo by hovering your mouse over it until a tooltip appears. It is, therefore, a good idea to have the most important aspects of a memo in the first few lines.

9.5 Linking Codes to Memos

Similar to document segments, memos can also be linked to a code. You can do this via the Code Quick List, which is symbolized by the blue arrow in the memo toolbar. Clicking on this symbol opens the most recently-used codes, so you can choose which ones to assign to the memo. If the code you are looking for is not in the Quick List, simply click on the code in the “Code System” and try again. The code should now be listed at the top of the list.



Linking a memo to a code

The linked code is then displayed with its complete path (code\subcode\subcode) in the Codes area in the top right of the memo window.

If you later decide to remove a linked code, simply click on the code in the memo window and click on the toolbar symbol of the blue arrow with a red x on it.

9.6 Viewing and Editing Memos

The memos attached to a document are visible when the document is loaded in the “Document Browser.” When the mouse cursor is moved over the memo icon next to the document, an information box appears with the memo title, author, creation date and time, and the beginning of the memo.

If you double-click on the **memo icon**, the memo dialog box will open again and you will be able to modify the memo. You can also click on the **memo** with the right mouse button and select **Open** from the context menu to open the memo.

To delete a memo, click on the **Delete** button in the memo dialog box. You have to confirm the command before MAXQDA removes the memo from the document.

You can also move memos in the “Document Browser” from one paragraph to another. Simply click on the **memo** and drag it to the new location. Memos in the “Code System” and “Document System” cannot be moved.

Note: Changes to a memo will be saved when the memo is closed. It is therefore recommended to close memos periodically during the editing process if major changes are being made.

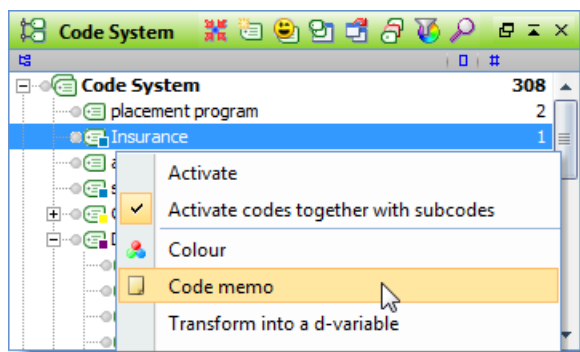


9.7 Creating Code Memos in the “Code System”

MAXQDA also allows you to attach memos to codes. These memos often contain the definition of a code or are used to organize the codes. Since code memos are part of the “Code System,” they are managed in the “Code System” window, and can be created by right-clicking on a code.

Example

Let’s say that you wanted to create a memo with a code definition – and later for an anchor example – for the code “Insurance.” You would just need to right-click on the code in the “Code System” and select **Code memo**. The memo window then appears.



Creating a code memo

After closing the memo, you will see it visualized next to the code in the “Code System.” For code memos, you will often want to insert an anchor example or explanation of when the code should be used.

As with other memo types, you can choose one of the 11 different visualization options, which will then be displayed next to that code.

9.8 Memos and the Windows Clipboard



When working with memos in MAXQDA, the Windows clipboard can be used in the same way as with text documents. This makes it easy to exchange text between MAXQDA and word processing programs.

The Windows clipboard may be used in two ways:

- ☐ Text can be imported into a MAXQDA memo. Select the text in the word processing program, copy it with **Ctrl+C** to the clipboard, and insert it with **Ctrl+V** into the memo.
- ☐ Text can be exported from a MAXQDA memo. Select the memo text or a part of it, copy it to the clipboard, and paste it into the word processing document.

Copying, cutting, and pasting can be done in MAXQDA and with other Windows programs with the shortcuts **Ctrl+C**, **Ctrl+X**, and **Ctrl+V**. In some Windows programs, you can also perform these actions with the **Edit** drop-down menu.

9.9 Printing and Exporting Individual Memos

Individual memos can be printed or exported. In the memo window, there are icons for both: **Print**  and **Export** .


Clicking the **Print** icon causes the memo to be printed out. The memo title is set as the heading, and the author and creation date/time are listed underneath it. You can also choose to only print out certain pages.

It is also possible to export the entire memo as a Rich Text Format document. Clicking on the export icon brings up a Windows dialog field, so that you can choose what to name the file and where it should be saved.

NY Interview Notes	
Document group	New York
Author	Marissa
Creation date	11.02.2011 09:52:38
There were very few interruptions during our interviews in NY. All of them took between 60 and 90 minutes, and none of the interviewees seemed overly nervous to be talking to us.	

An exported memo

9.10 The Memo Manager

Memos aren't only accessible from their location next to documents, codes, document segments, etc. They are also available as an "Overview of memos" in the Memo Manager. You can access these overviews in various ways. An overview of all memos in the entire project can be called up by selecting **Memo Manager** from the **Memos** drop-down menu or by clicking on the  symbol in the "MAXQDA standard" toolbar.

The "Memos" drop-down menu also offers several other options for selecting memos to be viewed:

- ☐ **All my memos** – lists all memos created by the user currently logged in.
- ☐ **My code memos** – lists the code memos created by the logged in user.
- ☐ **My document memos** – lists all memos created by the logged in user that are attached to documents.



- ❑ **Memos of the opened document** – lists only those memos connected to the document currently open in the “Document Browser.”
- ❑ **New free memo** – creates a new memo unattached to any document, group, segment, or code.

To see all memos linked to a certain code, right-click on the code and select **Overview of linked memos** from the context menu.

However you open the Memo Manager or the “Overview of memos,” a table will appear with a list of the requested memos. Each row represents one memo. If you click on a **memo** that is attached to a document segment, the appropriate document will be opened in the “Document Browser” at the exact location of that memo. Double-clicking on the **memo** opens it for editing.

The columns in the table contain all important information about the memo, including:

- ❑ The name of the document and document group in which the memo is found (or the name of the code in the case of a code memo).
- ❑ For memos attached to document segments, the paragraph number of that segment is listed.
- ❑ The author of the memo.
- ❑ The creation date.
- ❑ A preview of the memo text made up of the first 64 characters
- ❑ The origin of the memo (e.g. the document, document group, document segment, or code the memo is attached to).

The screenshot shows the Memo Manager window with a table of 21 memos. The table has the following columns: Document..., Document, Paragraph, Code, Document set, Title, and Author. The data is as follows:

Document...	Document	Paragraph	Code	Document set	Title	Author
New York	George	4			Career Conflict	Ray
New York	George	17			Resentment to...	Ray
New York	George	69			Self Talk?	Ray
Indiana	Kelly	9			Self doubt	Jeff
Indiana	Kelly	11			Serious - over ...	Jeff
Indiana	Kelly	13			Friendship conflict	Jeff

The “Overview of memos”

As usual in MAXQDA, the columns of the table can be sorted according to any field in the table, either in ascending or descending order. Simply left-click on the header of the col-

umn according to which the table is to be ordered. You can also change the order of the columns in the table by dragging any column to another position with the mouse.

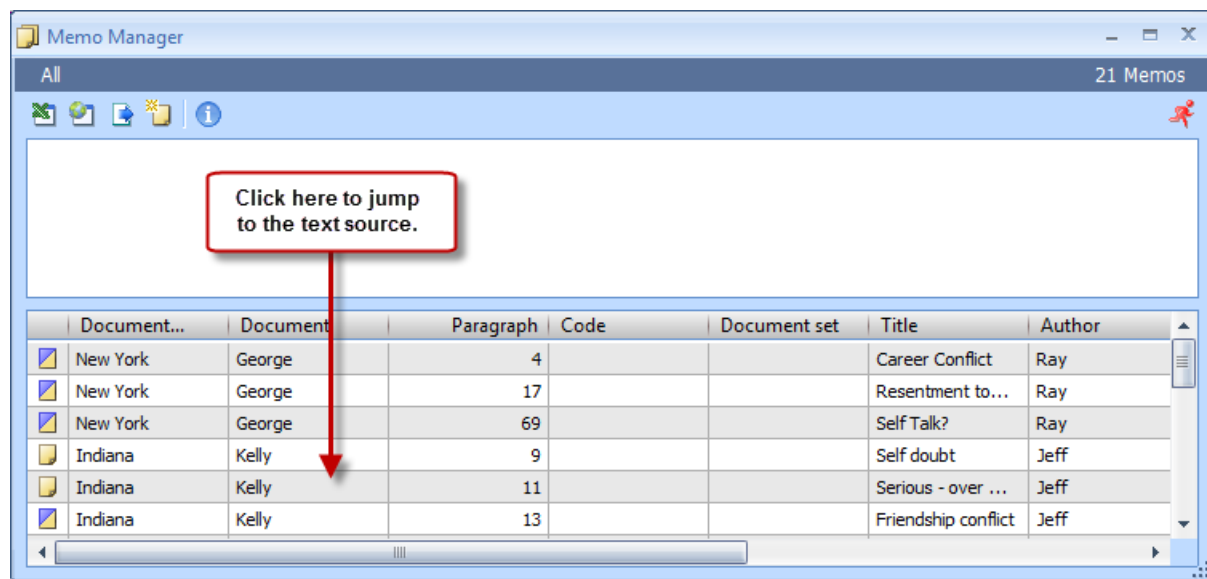
You can also choose which columns should be included in the table. By right-clicking on any of the column headers, you will have the option to choose **Select fields**. You can then check the box next to the columns that you wish to view and uncheck the boxes of any columns you want to hide. You can also sort the table according to a column by clicking on the **column header**.

MAXQDA also allows you to search in various columns. Right-click on the column header and select **Search**. You can then enter the word you are searching for into the field. If the word you are searching for is not necessarily the first word in the string, you can insert a "*" symbol in front of the word. If you enter a search string of "Kennedy," for example, it will not find the entry "John F. Kennedy," since "Kennedy" is not the first word. A search for "*Kennedy," though, would bring it up.

9.11 Jumping from a Memo to a Document

From each memo displayed in MAXQDA's Memo Manager, you can jump to the position in the document that the memo is attached to. You need only click on the desired **memo** with the left mouse button. The source document immediately appears in the "Document Browser" positioned exactly at the place where the memo is found.

This option only works with memos attached to document segments, of course. If you click on a **code memo**, the "Document Browser" remains unchanged, but the code is highlighted in the "Code System." The same happens with memos that are attached to objects in the "Document System."



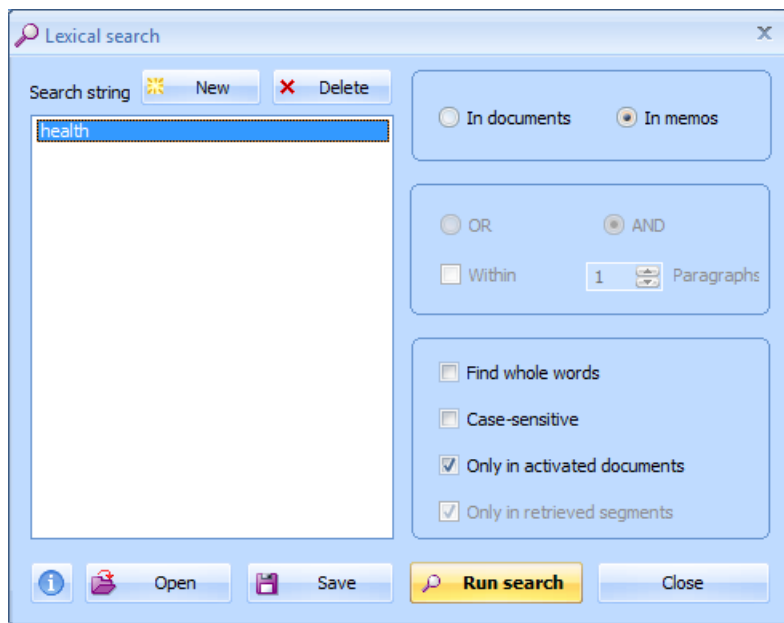
Jumping from a memo to a document



9.12 Searching for Text in Memos

The Memo Manager allows you to search in each of the columns, but you are limited by the fact that the preview only includes the first 64 characters of the memo. Searching the complete memo text is only possible with the lexical search function.

The lexical search procedure is described in detail in Section 13. The only difference is that you have to select the option to search **In memos** so that MAXQDA searches there and not in the documents.



Searching for "health" in the project memos

The results are shown as a list of all memos that contain the search string in the memo text. This table can be worked with as described above. You can sort, jump to the document, edit the memos, etc.

9.13 Selecting Specific Memos

The MAXQDA "Memos" drop-down menu includes the following functions:

- ☐ **Memo Manager** – opens a list of all memos in the entire project.
- ☐ **All my memos** – lists all memos created by the user currently logged in.
- ☐ **My code memos** – lists the code memos created by the logged in user.
- ☐ **My document memos** – lists all memos created by the logged in user that are attached to documents.

- ❑ **Memos of the opened document** – lists only those memos connected to the document currently open in the “Document Browser.”
- ❑ **New free memo** – creates a new memo unattached to any document, group, segment, or code.

To see all memos linked to a certain code, right-click on the code and select **Overview of linked memos** from the context menu.

However you open the Memo Manager or the “Overview of memos,” a table will appear with a list of the requested memos. Each row represents one memo. If you click on a memo that is attached to a document segment, the appropriate document will be opened in the “Document Browser” at the exact location of that memo. Double-clicking on the **memo** opens it for editing.

9.14 Viewing Memos Linked to a Code

Codes can be linked to memos in order to indicate what the memo is about. Of course, you can choose a descriptive title for a memo, based on the content of the memo, but to attach codes is a more systematic way to attach more thematic topics than could be formulated in a memo’s title.

To find all memos that are linked to the same code, right-click on the code in the “Code System” and select **Overview of linked memos** from the context menu that appears.

The result is a table of memos. The table contains all the memos to which the code is attached. As usual, double-clicking on a row opens the memo and a single click brings the source document into the “Document Browser” window.

The table can be sorted according to its columns and it can be exported to other programs.

9.15 Memos in a Specific Document or Document Group

The memos belonging to a particular document group, document set, or document can be viewed in a table. Right-click on the selection and choose **Overview of memos** from the menu that appears.

MAXQDA will then open a table similar to the Memo Manager table containing all the memos attached to these document(s). As with the Memo Manager, it is possible to sort the table, search in the different columns of the table, jump to the source document, and export the table or parts of it to an external file or to the clipboard.



9.16 Exporting a Selection of Memos

The result of a search for specific words in memos is a table listing all the memos containing the words. The same type of result, memos in a table, is obtained through a search for linked memos or when viewing the memos attached to a document or document group, as described above.

These tables of memos can be exported, that is saved as a file to be opened with another program. You can save the table in XLS/X, RTF, or HTML format. Click on one of the Export buttons located in the upper left corner of the dialog box, and choose appropriate the format.

The exported RTF file appears as follows:

Title	Life strategy and mental health
Document	New York\Vincent
Paragraph	9
Author	Marissa
Creation date	12.02.2011

Again, this touches on Vincent's life strategy. He is able to maintain "strong mental health" and have a positive attitude even though he realizes he's "an accident waiting for a place." Again, it seems like his previous life strategy enabled him to successfully deal with the situation.

Is it just Vincent's PMA that enabled him to cope, or is there something more? Other people use religion or a support network (friends, family, etc.) to get through tough situations - is that the same sort of thing going on???

Part of an exported memo table in RTF format

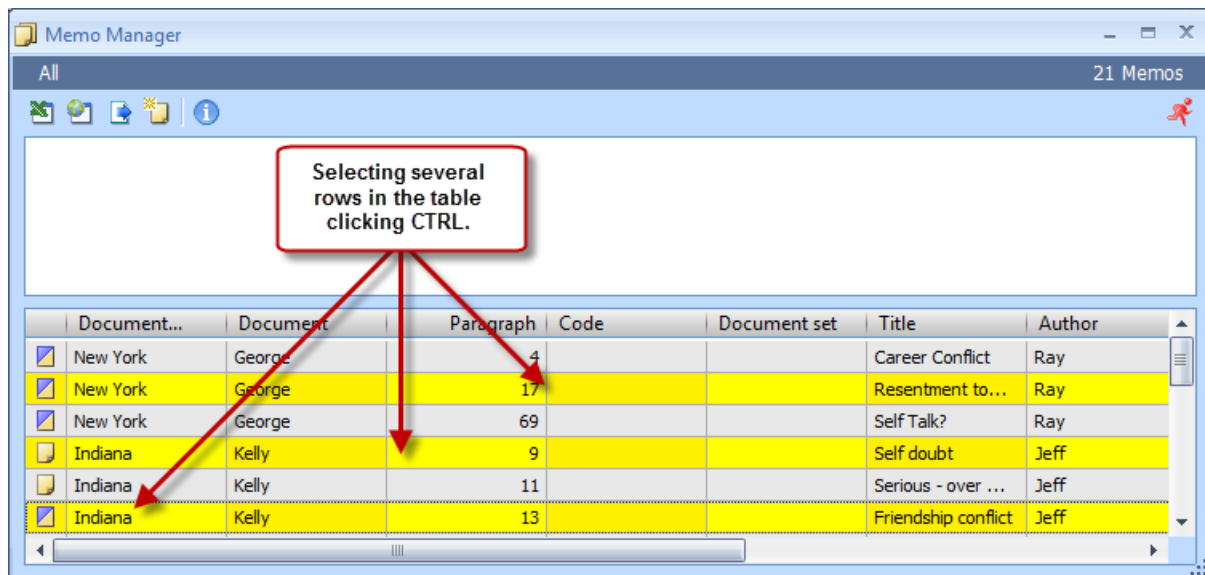
Here you see all the information contained in the memo, such as memo title, creation date, and linked codes as well as the memo text itself. The exported RTF file can be opened in your word processing program to add layout features like headers and footers.

If you choose HTML or XLS/X as the export format, MAXQDA creates a table that is immediately opened in your default web browser such as Internet Explorer or Excel. It is also easy to print out the list in these formats.

Memo Manager									
Document group	Document	Paragraph	Code	Document set	Title	Author	Creation date	Memo text	Page Origin
New York	Vincent	9			Life strategy and mental health	Marissa	12.02.2011 09:01	Again, this touches on Vincent's life strategy. He is able to maintain "strong mental health" and have a positive attitude even though he realizes he's "an accident waiting for a place". Again, it seems like his previous life strategy enabled him to successfully deal with the situation. Is it just Vincent's PMA that enabled him to cope, or is there something more? Other people use religion or a support network (friends, family, etc.) to get through tough situations - is that the same sort of thing going on???	1 In-document
Indiana	Jack	8			Friends role in health	Marissa	12.02.2011 14:49	About gym....	1 In-document

Results of a memo export in HTML format

Tip: The entire table with all of your memos will be exported unless you have selected some of the memos, which are then marked yellow. You can select a single memo by clicking on it with your mouse. If you want to select more than one, hold the Ctrl button as you click on them. If you want to select a number of memos that are right next to each other in the list, click on the first one, hold Shift, and then click on the last one. All of the memos in between the first and the last will also be included in the selection.



Selected memos are yellow in the memo table

9.17 Converting a Memo into a Document

Since memos are used to assist in the development of ideas and hypotheses, it could happen that they quickly become very important to your analysis. In some cases, these memos may be important enough that you would want to convert them into documents, so they



could be analyzed and coded. It is only possible to associate an entire memo with codes, while every single character of a document can theoretically be coded as many times as needed.

To convert a memo into a document, follow these steps:

- ☐ Open the Memo Manager
- ☐ Select the memo(s) to be transformed
- ☐ Right-click on the **memo**
- ☐ Select **Convert to a document**

The newly-created document will now be listed as the first document in the “Document System.” The first lines of the document are the former memo’s title, author, and creation date.

10 Variables

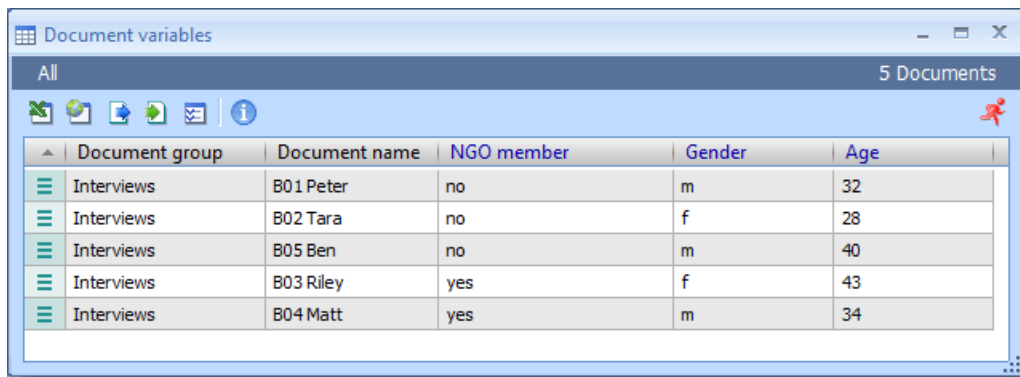
10.1 Document and Code Variables in MAXQDA

MAXQDA differentiates between “document variables” and “code variables”:

Document Variables

Document variables are associated with an entire document, (e.g. the person interviewed in an interview transcript). In these cases, you can assign socio-demographic information like gender, age, education level, etc. that can then be analyzed in conjunction with the actual text.

In the following example, the age and gender of all five respondents was noted, in addition to whether they were members of an NGO:



The screenshot shows a window titled 'Document variables' with a sub-header 'All' and '5 Documents'. Below this is a table with the following data:

Document group	Document name	NGO member	Gender	Age
Interviews	B01 Peter	no	m	32
Interviews	B02 Tara	no	f	28
Interviews	B05 Ben	no	m	40
Interviews	B03 Riley	yes	f	43
Interviews	B04 Matt	yes	m	34

Example of application of Document Variables

Code Variables

Since the document variables are always connected to an entire document, it isn't possible to assign several values for each document variable. If a transcript includes various interviewees, as would be the case in a group discussion, document variables are not enough. In these cases, one would want to assign variables for each speaker. In these cases, you can use code variables, which make it possible to input as many different sets of variables as you wish within a single document. The term “code variable” indicates that the variables are actually assigned to a code rather than to a document. In a group discussion, you can create a code for each speaker and then assign variables for that speaker's code

The development of code variables in MAXQDA makes it possible for you to set variables for a section of a document rather than the entire document. As with document variables, code variables can then be used as selection criteria during the analysis process.

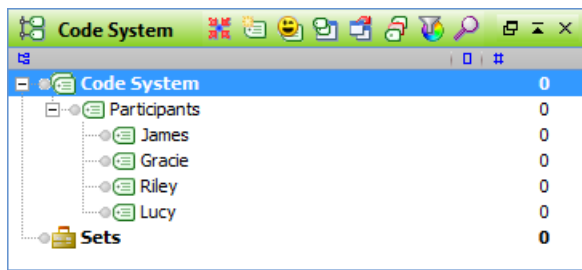
These sections of a document can, for example, represent a certain speaker in a group discussion, for whom you would like to assign certain variables, such as age, income, educa-



tion level, etc. You can then choose to only see what people between the ages of 50 and 60 with an annual income of \$50,000-\$75,000 said about a certain theme.

Working with code variables requires that you have already coded the specific sections of a document as having been spoken by a certain person (e.g. things John Smith said would be coded as “Smith” or “JS.”)

It is then necessary to create a top-level code, such as “Participants” as shown below. “James,” “Gracie” “Riley” and “Lucy” represent the individual people that speak at different points in the documents.



Top-level code “Participants” with the individual people as subcodes

Each participant in the group discussion - each subcode - can now be assigned a variable value. As displayed in the image, the age, profession, and “Outlook on life” have been defined:

Code-ID	Position	Parent code	Code	Age	Outlook on life	Job
1	1		Participants	0		
2	5	Participants	Lucy	31	pessimistic	Doctor
3	4	Participants	Riley	22	positive	Student
4	3	Participants	Gracie	26	positive	Nurse
5	2	Participants	James	25	pessimistic	Teacher

Example of application of Code Variables

10.2 The “List of document variables” and the “List of code variables”

MAXQDA allows you to add variables to each document and code.

Two views are available from which to manage variables: The “List of variables” and the “Data editor.” In the “List of variables,” all variables defined within the project are listed in a table. The “Data editor” presents the data table as a square matrix showing “Rows x Co-

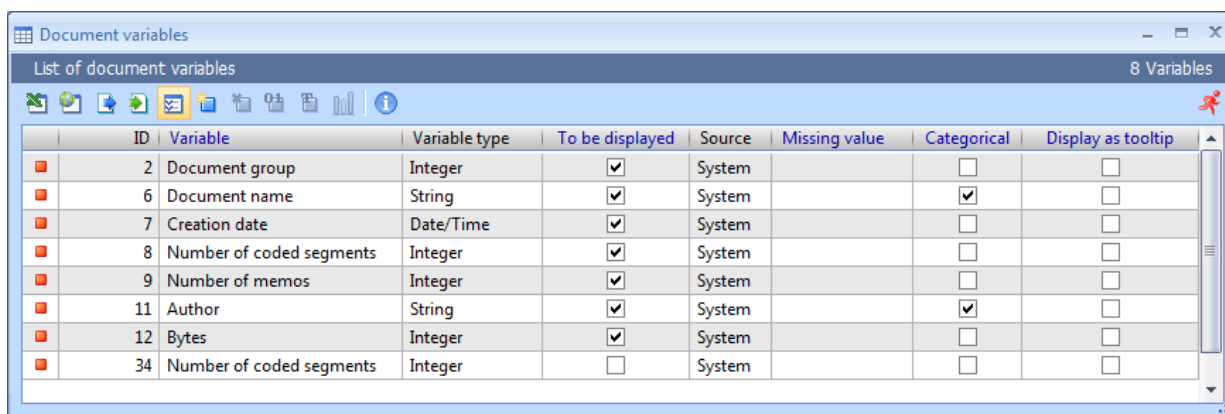
lums,” similar to a statistics program. The documents or codes are displayed in the rows of the table, with the variables being displayed in the columns.

The “List of document variables”









The “List of document variables” can be called up from the menu **Variables > List of document variables**.

When you open the “List of document variables” in a newly created project, the system variables displayed in the image are already defined:

- ☐ **Document group** – contains the name of the document group that a particular document is a part of
- ☐ **Document name** – contains the name of the document
- ☐ **Creation date** – contains the date the document was imported/created
- ☐ **Number of coded segments** – contains the number of coded segments in the document
- ☐ **Number of memos** – contains the number of memos in the document
- ☐ **Author** – the user that was logged in when the document was imported or created
- ☐ **Bytes** – the size of the document in bytes



The screenshot shows a window titled "Document variables" with a sub-header "List of document variables" and "8 Variables". The table below represents the data shown in the screenshot:

	ID	Variable	Variable type	To be displayed	Source	Missing value	Categorical	Display as tooltip
	2	Document group	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
	6	Document name	String	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	7	Creation date	Date/Time	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
	8	Number of coded segments	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
	9	Number of memos	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
	11	Author	String	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>	<input type="checkbox"/>
	12	Bytes	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
	34	Number of coded segments	Integer	<input type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>

System Variables in the “List of document variables”

The system variables are indicated with a red symbol in the first column of the list of variables. System-defined variables cannot be modified or deleted. User-defined variables are indicated with a blue symbol in the first column - these variables can be modified or deleted as desired.

The “List of code variables”

The “List of code variables” can be called up from the menu **Variables > List of code variables**.

When you open the “List of code variables” in a newly created project, the system variables displayed in the image are already defined:



- ☐ **Code-ID** – Unique code identification number in this project
- ☐ **Position** – Position of the code in the Code System
- ☐ **Parent code** – Names of the codes at the following (higher) level (if applicable)
- ☐ **Code** – Code name
- ☐ **All coded segments** – Number of segments coded with this code
- ☐ **Activated coded segments** – Number of segments coded with this code in current activated documents (code needs to be activated)
- ☐ **Author** – User who created the code
- ☐ **Creation date** – Date and time at which the code was created
- ☐ **All coded segments %** – Relative frequency of “All coded segments”
- ☐ **Activated coded segments %** – Relative frequency of “Activated coded segments”
- ☐ **Documents** – Number of documents in which the code appears

System variables can not be modified here; for example, the name of a participant, if misspelled, can be modified only in the “Code System” and not in the “List of variables.”

ID	Variable	Variable type	To be displayed	Source	Missing value	Categorical
0	Code-ID	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
1	Position	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
2	Parent code	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
5	Code	String	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>
7	All coded segments	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
8	Activated coded segments	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
9	Author	String	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>
10	Creation date	Date/Time	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
13	All coded segments %	Floating point	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
14	Activated coded segments %	Floating point	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
15	Documents	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>

System variables in the “List of code variables”

Sorting the “List of variables”

The list of variables can be sorted in alphabetical or reverse alphabetical order just like any other table in MAXQDA. Simply click once or twice on the column header you would like to sort by.

The Toolbar

Both the “List of document variables” and “List of code variables” can be managed from the toolbar, which contains identical symbols for both lists.



Show as Excel table – saves and opens a table in XLS/X format with the rows you have selected in the variable table.



Show as HTML table – saves and opens a table in HTML format with the rows you have selected in the variable table.



Export – opens a dialog window, so you can save the selected rows of the variable table in XLS/X, HTML, or tab-delimited text format.



Import data – allows import of spreadsheets in XLS/X or TXT format.



Variable view – switches from variable to data view.



New variable – creates a new variable.



Delete variable – deletes selected variable.



Transform into binary variable – converts selected variables into dichotomous variables.




Transform into string variable – converts selected variables into string variables.

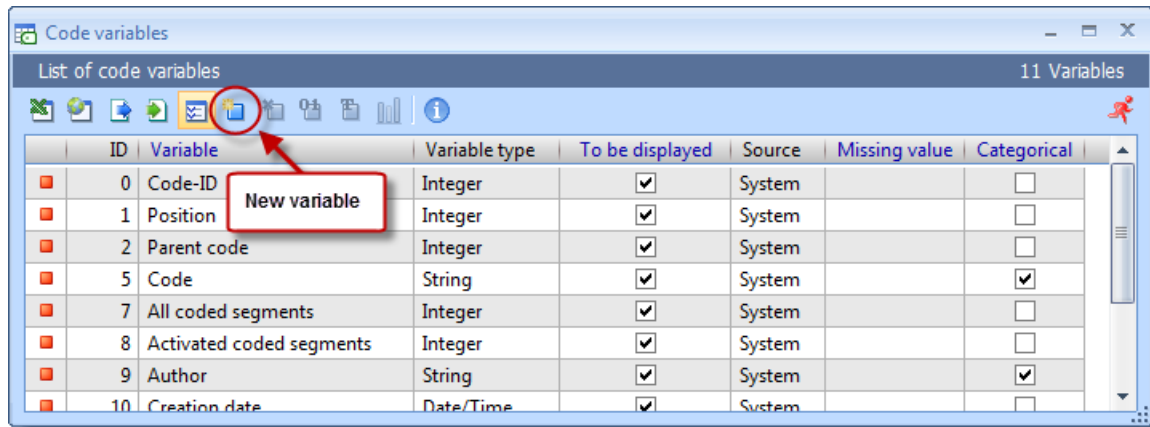


Statistic of document-/codevariables – calls up the Statistics and Graphics function for the indicated variable.

10.3 Add new variables

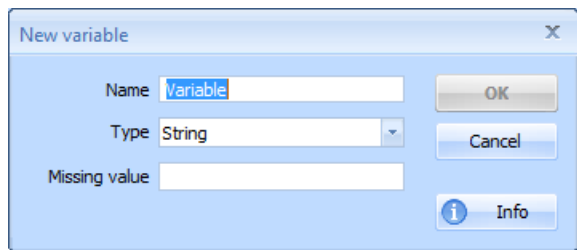
You can add new variables to both the “List of document variables” and “List of code variables”:

1. Select **List of document variables** or **code variables** from the **Variables** drop-down menu
2. Click on the **New variable**  icon in the toolbar or use the shortcut **Ctrl+N**.



Creating a new variable with the icon in the toolbar

Es erscheint darauf das folgende Fenster:



Defining a new variable

You can now insert a name for the variable and choose its type. There are five different types of variables to be chosen from:

- ☐ String (text)
- ☐ Integer
- ☐ Floating point (number)
- ☐ Date/time
- ☐ Boolean (false/true)

When creating an integer variable, you also have the option of defining whether it is a metric or a categorical variable. The variable for age, for example, can be handled in various ways: if you want to enter the age in years, you are dealing with a metric variable, for which you may want to establish a mean. If you have defined ages into categories (e.g. 1 = under 18, 2 = 18-30, 3 = 31-50, 4 = 51+), then you are dealing with a categorical variable, for which you would not want to find a mean value.

You can also select what value should be inserted automatically for those cases where there is a missing value. This is especially important if you are planning to later export the data to a statistics program.

Tip: To avoid confusion, it is recommended that you do not create two variables with the same name. Statistics programs do not allow for this, which could cause problems later if you attempt to export data from MAXQDA to that program.

If you are planning to later export the data to such a program, it is recommended that you choose integer as your variable type if you aren't sure which to use. SPSS can now automatically transform a string into a numerical variable, though, which allows you to create a more user-friendly string variable. For example, it is easier to avoid confusion, when you see "Gender = Male" rather than "Gender = 0."

Note: Document variables are created for the entire project, which means you cannot create different variables for each document group.



The number of variables is not limited; you may add new variables or remove them whenever you'd like. However, MAXQDA is not designed to be a statistical program, but rather a program for qualitative data analysis and mixed methods approaches, where working with more than 100 attributes is rather unusual.

When creating a name for your variable, it is important that you think ahead. MAXQDA lets you create a name with up to 64 characters, and there aren't any syntax rules, meaning you can use several words with spaces and special symbols.

Tip: If you are planning on exporting your variables later to another program, though, you should check on this other program's requirements. Many statistics programs are more restrictive; SYSTAT/MYStat, for example, only allows for variable names with eight or fewer characters, as was the case with earlier versions of SPSS. The variable names are also often used in MAXQDA's visual tools (usually as column headers), so long variable names can also take up more space than you would want them to.

10.4 Changing Variable Types

MAXQDA allows for changes in variable types for existing variables:

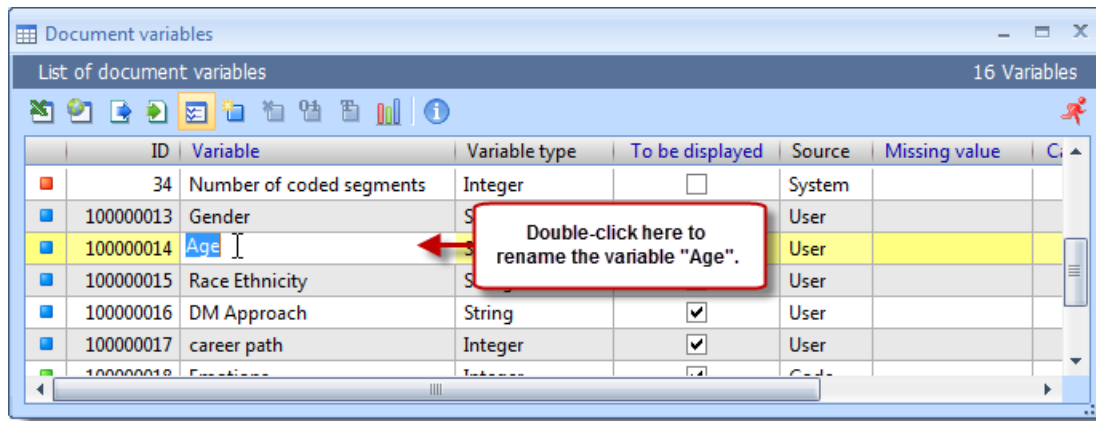
- ☐ Document variables, which display how often a code exists (their source is acknowledged as "code") can be transformed into a binary variable by clicking on the  button. After it is transformed the variable only contains the values 1 and 0, stating if a code has been assigned in this document or not.
- ☐ User defined variables "Integer," "Floating Point," "Date/Time" and "Boolean" can be transformed into string variables (text) by clicking the .

Transforming a variable to binary or string cannot be reversed.




10.5 Renaming and Deleting Variables

Variables can be given a new name at any time. Double-click on the **variable**, and enter the new name.



Renaming a variable in "List of document variables"

Renaming a variable has no effect on the values stored in the variable's column, but it does have an effect on the saved specifications for the activation by variable function (**Activate by document variable** and **Activate by code variable**). This procedure can save logical search formulas using variables to a file. These files are not refreshed when you rename a variable. Thus, the saved formulas may no longer work when you reload them because the variables mentioned in the formula no longer exist.

Deleting a variable is done in the same way as renaming it. Select the variable you want to delete with the mouse. Now the focused variable is highlighted (yellow bar). Then click the **Delete variable**  button in the toolbar. When you delete a variable, the whole column including all its values will be removed from the table.


10.6 The "Data editor"

When working with variables, two views are available in MAXQDA: the variables view in the "List of document variables" or "List of code variables," and the data view in the "Data editor (document variables)" or "Data editor (code variables)." The "Data editor" is similar to statistics programs in that the data is displayed as a rectangular matrix with a "rows x columns" structure. Variables are displayed in the columns: for documents, document variables, for codes, code variables. In the example of the group discussion, these refer to the participants, meaning the number of rows corresponds to the number of documents in the "Document System"; in an interview study this would refer to the number of interviewees. With code variables the number of rows corresponds to the number of codes, and their

subcodes, for which code variables were queried. The table therefore contains, in the example, a row for each participant in the group discussion.

Calling up the “Data editor (document variables)”

The “Data editor (document variables)” can be called up in 3 ways:

1. from the menu **Variables > Data editor (document variables)**,
2. from the “List of document variables” by clicking on the **Variable view**  button or by pressing **Ctrl+O**,
3. in the “Document System” window, by selecting **Overview of variables** in the context menu. When called up at the top level, the table contains all the documents; at the document group level, the data table contains only corresponding documents, and at the document level, only data.

Alternatively, you can click on the quick button in the “MAXQDA standard” toolbar:



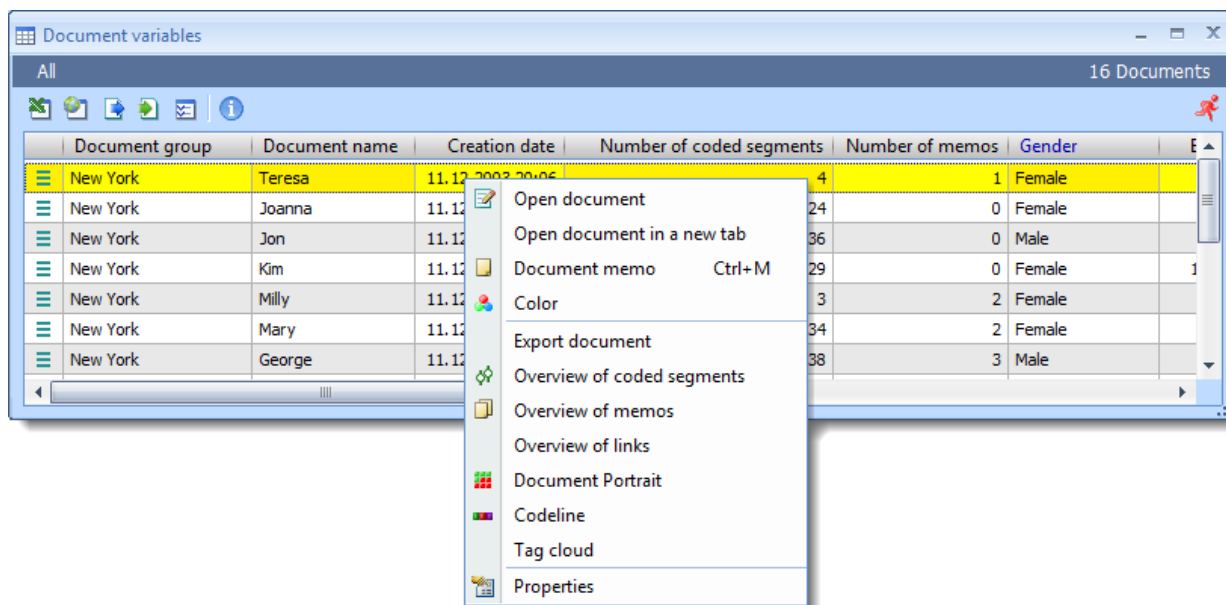
Quick button for accessing the “Data editor (document variables)”

A table will appear, in which the selected documents and their corresponding variable values are listed. System variables can be recognized by the black column heading; this cannot be modified in the table. User-defined variables are indicated with a blue heading; their values can be adjusted by double-clicking the appropriate cell.

Document variables						
All						
16 Documents						
	Document group	Document name	Creation date	Number of coded segments	Number of memos	Gender
	New York	Teresa	11.12.2003 20:06	4	1	Female
	New York	Joanna	11.12.2003 20:06	24	0	Female
	New York	Jon	11.12.2003 20:06	36	0	Male
	New York	Kim	11.12.2003 20:06	29	0	Female
	New York	Milly	11.12.2003 20:06	3	2	Female
	New York	Mary	11.12.2003 20:08	34	2	Female
	New York	George	11.12.2003 20:06	38	3	Male

“Data editor (document variables)”


In the “Data editor (document variables)” it is possible to access a document by right-clicking the appropriate row. A context menu will appear which lists options for opening the document.



Context menu in "Data editor (document variables)"

Calling up the "Data editor (code variables)"

The "Data editor (code variables)" can be called up in 3 ways:

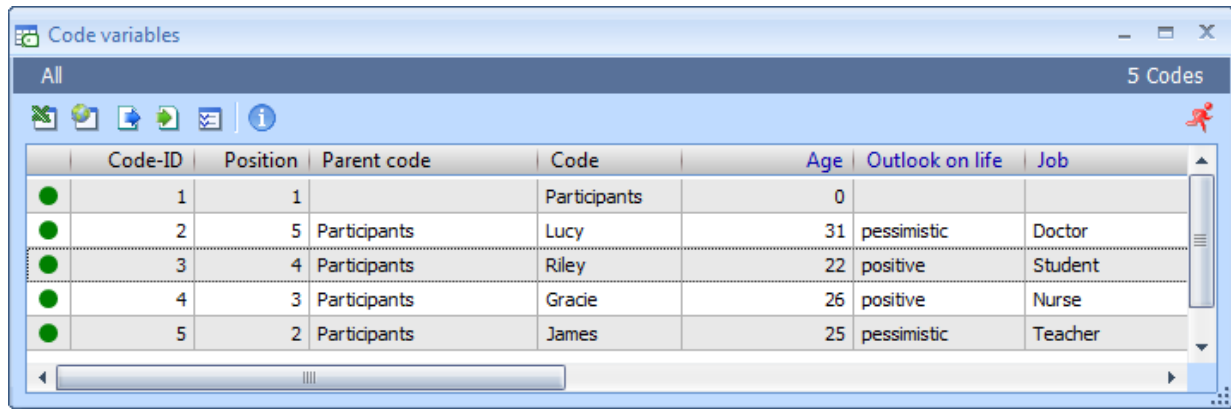
1. from the menu **Variables > Data editor (code variables)**,
2. from the "List of code variables" by clicking on the **Variable view**  button or by pressing **Ctrl+O**,
3. in the "Code System" window, by selecting **Overview of variables** in the context menu of a code. If you click on a code which does not contain subcodes, only the variable values for this code will be listed in the table. If the code contains subcodes, the variables of the subcodes will also be listed.

Alternatively, you can click on the quick button in the "MAXQDA standard" toolbar:



Quick button for accessing the "Data editor (code variables)"

A table will appear which lists the selected codes and their corresponding variable values. For the participants of the group discussion, the individual participants and their background information will be listed. These values can be adjusted by double-clicking in the appropriate row.








Code-ID	Position	Parent code	Code	Age	Outlook on life	Job
1	1		Participants	0		
2	5	Participants	Lucy	31	pessimistic	Doctor
3	4	Participants	Riley	22	positive	Student
4	3	Participants	Gracie	26	positive	Nurse
5	2	Participants	James	25	pessimistic	Teacher

"Data editor (code variables)"

An extensive context menu, similar to the "Code System" context menu, is also available for individual codes.

The "Data editor" Toolbar

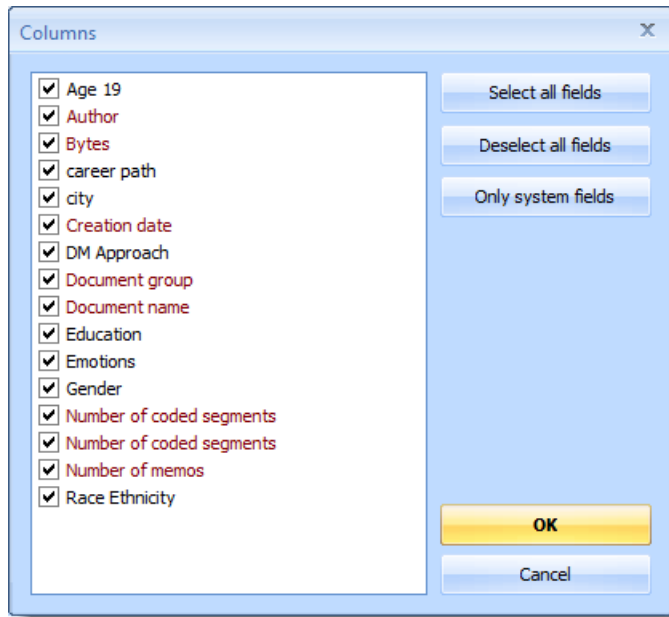
At the top of the "Data editor" there is a toolbar which provides easy access to the following functions:

-  **Show as Excel table** – saves and opens a table in XLS/X format with the rows you have selected in the variable table.
-  **Show as HTML table** – saves and opens a table in HTML format with the rows you have selected in the variable table.
-  **Export** – opens a window, so you can save the selected rows of the variable table in XLS/X, HTML, or tab-delimited text format.
-  **Import data** – allows you to import a table for code variables
-  **Variable view** – switches from data to variable view.

Managing Tables

If you have created a large number of variables, it quickly becomes difficult to see then entire table at one time. You can view more columns at one time by making the columns thinner (click and drag the separator between column headers), but eventually even this does not suffice.

You do, of course, have the option of scrolling to the right, but you can also change the order of the columns by clicking on a column header and dragging it to the location where you would like to have it. It's easier, though, to simply hide those columns that you aren't working with. To do so, simply right-click on any column header and choose **Select fields**. You can then check the boxes next to the columns you would like to view and uncheck the boxes next to the columns you want to be hidden.



Variable selection of columns to be viewed

Besides (un)checking the boxes one by one, you also have the following options:

- ☐ select all fields
- ☐ deselect all fields
- ☐ only system fields (those automatically created by MAXQDA)
- ☐ hide or show variables by checking or un-checking the box in front of the variable name

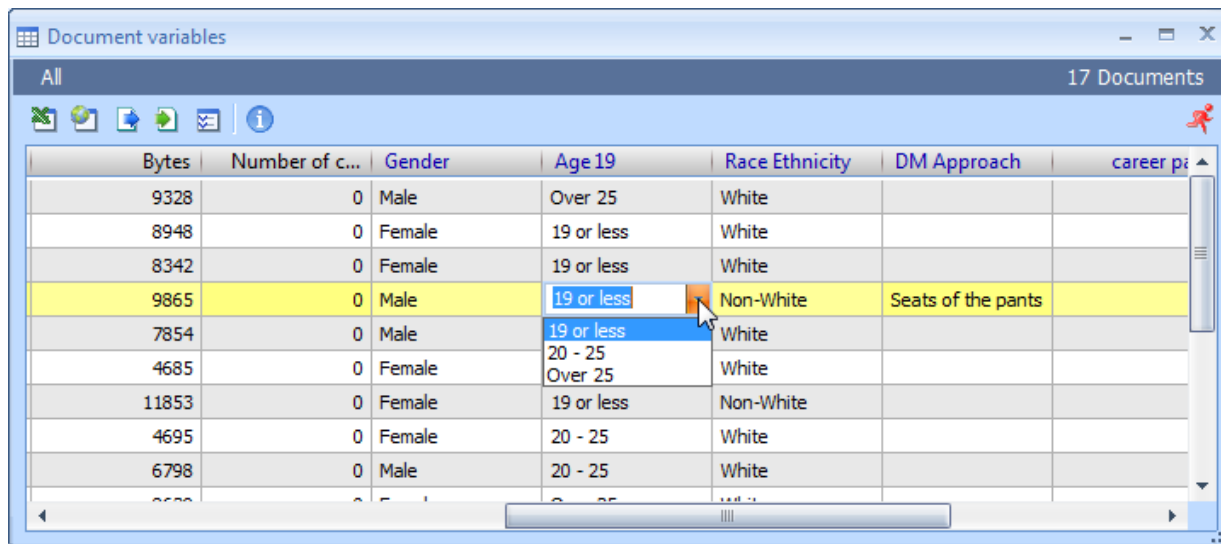
10.7 Entering Variable Values in “Data editor”

To insert variable values into the “Data editor:”

Double-click on the cell of the table where you would like to insert a value. The values that have already been given to any of the cases in the column are in the drop-down list, sorted alphabetically. You can view this list and select a value from it by clicking on the triangle to the right of the cell you double-clicked on.

If the value isn’t available in the drop-down list, you can simply type in the value after double-clicking in the cell.

Tip: Drop-down lists are less useful when a variable has many different values (e.g. the exact income of every interviewee). Even if the value was in the drop-down list, it would be faster to type it in than to search for it. You can stop the program from displaying a column’s drop-down list by right-clicking on the column header and selecting (to uncheck) **List of values**.



Bytes	Number of c...	Gender	Age 19	Race Ethnicity	DM Approach	career pi
9328	0	Male	Over 25	White		
8948	0	Female	19 or less	White		
8342	0	Female	19 or less	White		
9865	0	Male	19 or less	Non-White	Seats of the pants	
7854	0	Male	19 or less	White		
4685	0	Female	20 - 25	White		
11853	0	Female	Over 25	White		
4695	0	Female	19 or less	Non-White		
6798	0	Female	20 - 25	White		
6798	0	Male	20 - 25	White		

Options for the variable value in the quick list

10.8 Exporting Document and Code Variables

MAXQDA provides basic functions for the statistical analysis of variables, and makes it possible to create frequency tables and diagrams. For further analysis, such as cluster or factor analysis, it is necessary to export the document and code variables.

To export the variables:

1. Click on the **Export** button in the toolbar of the “Data editor” or choose **Variables > Export data (document variables)** in the drop-down menu.
2. Give the exported file a name. You can also select exactly where you want to save the file.
3. For the file format, you can choose between XLS/X, HTML, and TXT (tab delimited). Most statistics programs work just fine with XLS/X files.
4. Select **OK**.

The exported file will then be opened in Excel and can be immediately analyzed.

Note: In many statistics programs, the variable names are much more limited than in MAXQDA. Rather than allowing for up to 64 characters (including special characters), some programs allow for only 8. It is also not possible to have more than one variable with the same name in many of these programs.



	A	B	C	D	E	F	G
	Document name	Document group	Gender	Age 19	Education	city	Number of Siblings
2	Teresa	New York	Female	Over 25	1	new york	2
3	Joanna	New York	Female	20 - 25	3	new york	0
4	Jon	New York	Male	19 or less	3	new york	17
5	Kim	New York	Female	19 or less	1	new york	0
6	Milly	New York	Female	Over 25	0	new york	0
7	Mary	New York	Female	19 or less	5	new york	0
8	George	New York	Male	19 or less	1	new york	0
9	Vincent	New York	Male	Over 25	1	new york	0
10							

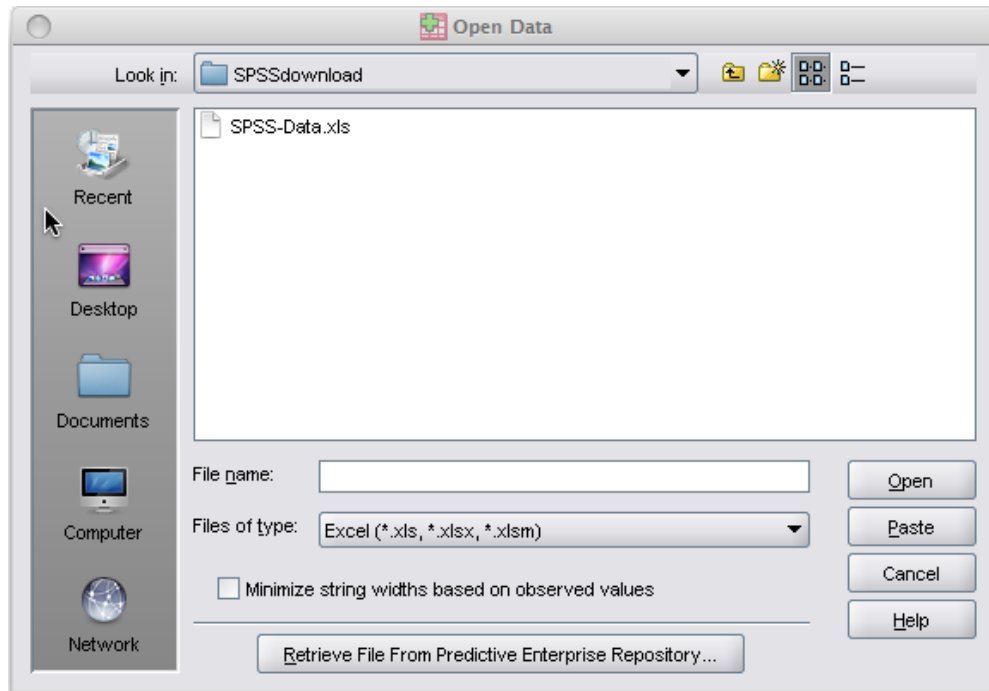
Exported variable matrix in Excel

Tip: The variable matrix can also be transferred via the Windows clipboard. Simply highlight the section of the table that you want to move and hit **Ctrl+C** to copy it. Then open Excel and hit **Ctrl+V** to paste.

10.9 Importing the Variable Matrix into SPSS

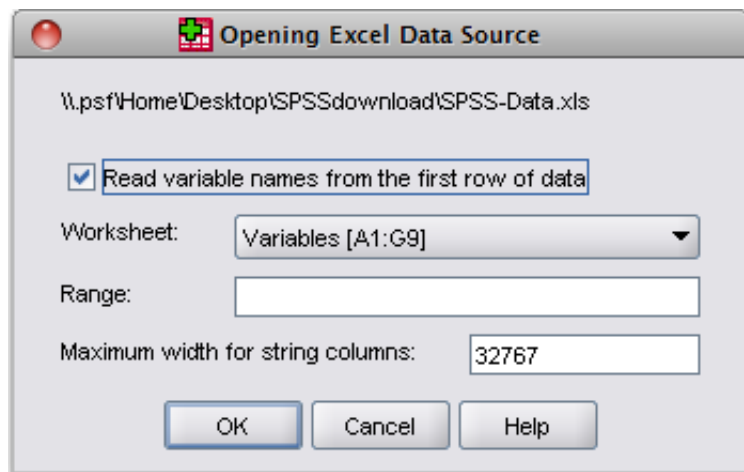
Importing the variable matrix from MAXQDA into SPSS is easiest when you use the Excel format:

- ☐ Choose **Export data (document variables)** from the **Variables** drop-down menu.
- ☐ Choose the Excel format (XLS/X), give the file a name, and choose where you want to save it.
- ☐ The file will then be opened automatically in Excel, so you can check that everything is formatted correctly. Close the document, so SPSS will be able to open it.
- ☐ Open SPSS and choose the option to open data. Change the data type to **Excel**.



Choosing the file type in SPSS

- ☐ Navigate to the file you just saved and double-click on it.
- ☐ Make sure the box **Read variable names from the first row of data** is checked and click **OK**.



Setting the import settings in SPSS

The results will look as follows:



*Untitled2 [DataSet1] - SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Add-ons Window Help

1 : Documentname Teresa Visible: 7 of 7 Variables

	Documentname	Documentgroup	Gender	Age19	Education	city	NumberofSiblings
1	Teresa	New York	Female	Over 25	1	new york	2
2	Joanna	New York	Female	20 - 25	3	new york	0
3	Jon	New York	Male	19 or less	3	new york	17
4	Kim	New York	Female	19 or less	1	new york	0
5	Milly	New York	Female	Over 25	0	new york	0
6	Mary	New York	Female	19 or less	5	new york	0
7	George	New York	Male	19 or less	1	new york	0
8	Vincent	New York	Male	Over 25	1	new york	0

Data View Variable View

SPSS Statistics Processor is ready

Variable matrix of the document variables imported into SPSS

10.10 Importing the Variable Matrix for Document Variables

There are several situations in which you might want to import document variables into MAXQDA, such as:


- ☐ If you want to analyze answers to open-ended questions in combination with the quantitative socio-demographic information that you acquired for each of those who filled out the survey. Usually, you will already have this quantitative data in a matrix of some sort, and re-entering that information into MAXQDA would just cause you unnecessary work.
- ☐ If you and others in a research team each entered variable values for various documents and now want to bring them all together.
- ☐ If you did statistical analysis on material that you exported from MAXQDA and now want to reimport the results of your statistical analysis into MAXQDA. You could, for example, have done a cluster analysis, and now want to import the information about which cluster each document belongs to as a variable into MAXQDA. If you want to avoid entering each one of these new values by hand, you can simply use the variable import option.

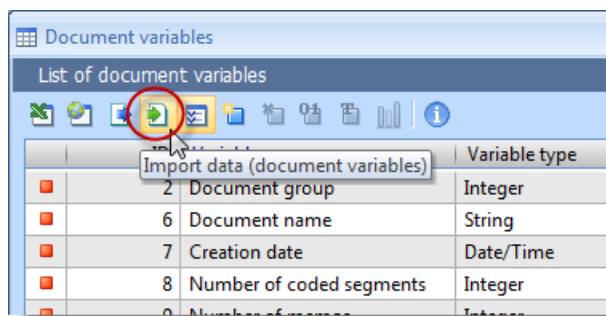
MAXQDA can import data from XLS/X or TXT (tab-delimited) files. If possible, you should always use the Excel format, since it is the easiest to work with. No matter which format you use, though, it should be organized as follows:

Document group	Document name	Variable 1	...	Variable N
Group 1	Text 1	Variable value for Text 1		Variable value for Text 1
Group 1	Picture 1	Variable value for Picture 1		Variable value for Picture 1

The first two column headers serve as markers for assigning variable values to the documents and are required for successful import. Every row must have an entry for the document group and document name columns. Only if these exact group and document names are found in the "Document System" of the MAXQDA project, will the variables and variable values be imported. You can also use the column headers "textgroup" and "textname" in place of "Document group" and "Document name." You can then include as many different variable columns as you wish.

Note: The variable values for documents which do not belong to a document group can also be imported. In order to do so, the appropriate cell in the "Document Group" column must be left empty.

After preparing the document, be sure to save and close (!) it. You can then start the import procedure by selecting **Variables > Import data (document variables)** from the drop-down menu. Alternatively, you can click on the **Import data (document variables)**  button in the "List of document variables."



"Import data" button in the "List of document variables"

A dialog field appears in which you can specify the source and target variables along with the type of variables to be imported.

MAXQDA does the following during the import:

1. All variables in the import file that did not yet exist in the MAXQDA project are created
2. Variables that already existed will be updated with the new values in the import file.

Attention: If you don't see the new variables in the variable list after import, it may be that they need to be toggled on. To do this, right-click on one of the column headers and choose **Select fields**.



Tip: An easy way to set up an Excel file for importing new values is to first export the variable data matrix as an Excel file by clicking on the Excel icon in the toolbar of the variable list. An Excel file with all of the current variables will open up, and you can then add new columns for new variables and update variable values that you want changed. All you have to do after that is save the Excel file and import it into MAXQDA.


10.11 Importing the Variable Matrix for Code Variables

MAXQDA can import data from XLS/X or TXT (tab-delimited) files. If possible, you should always use the Excel format, since it is the easiest to work with. No matter which format you use, though, it should be organized as follows:

Parent Code	Code	Variable 1	...	Variable N
Code 1	Subcode 1	Variable value for subcode 1		Variable value for subcode 1
Code 1	Subcode 2	Variable value for subcode 2		Variable value for subcode 2

The first two column headers serve as markers for assigning variable values to the codes and are required for successful import. Every row must have an entry for the parent code and code columns. Only if these exact codes and subcodes are found in the “Code System” of the MAXQDA project, will the variables and variable values be imported. You can then include as many different variable columns as you wish.

Tip: It is not possible to import variable values for top-level/parent codes.

After preparing the document, be sure to save and close (!) it. You can then start the import procedure by choosing **Variables > Data import (code variables)** from the drop-down menu. Alternatively, you can click on the **Import data (code variables)**  button in the “List of code variables.”

A dialog field appears in which you can specify the source and target variables along with the type of variables to be imported.

MAXQDA does the following during the import:

1. All variables in the import file that did not yet exist in the MAXQDA project are created.
2. Variables that already existed will be updated with the new values in the import file.

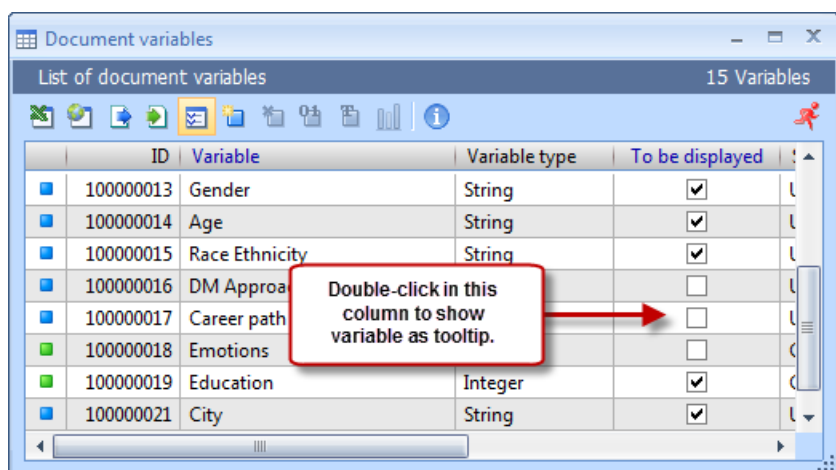
Attention: If you don’t see the newly-imported code variables in the code variable list, it may be because they were toggled off. Simply right-click on a column header and choose “Select fields” to change which variables are viewed.

Tip: An easy way to set up an Excel file for importing new values is to first export the variable data matrix as an Excel file by clicking on the Excel icon in the toolbar of the variable list. An Excel file with all of the current variables will open up, and you can then add new columns for new variables and update variable values that you want changed. All you have to do after that is save the Excel file and import it into MAXQDA.

10.12 Display Document Variables as Tooltips

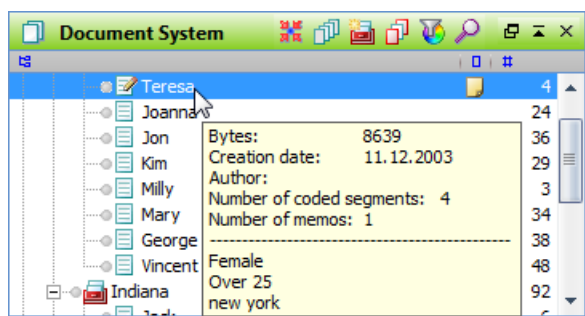
It is often necessary to call up background information on a document in the “Document System” (for example, the age or gender of a participant, or whether this participant works for an NGO). To this end, you can choose as many document variables in the “List of document variables” as you wish; their respective values will then be displayed as tooltips in the “Document System.”

Double-click on a box in the **Display as Tooltip** column in order to select the document variable to display, or to close the Tooltip display.



Select Tooltip display for document variable

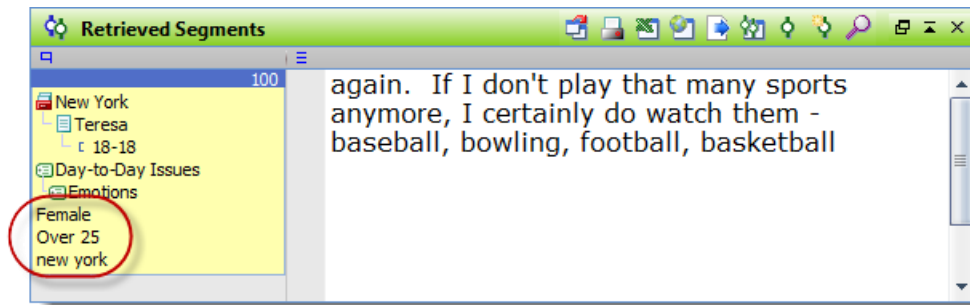
When you click on a document in the “Document System,” a tooltip showing the value of the selected variable will appear. In the following image, the display shows that the respondent “Teresa” is female, over 25 years old and lives in New York.



Tooltip display of variable value in a document



The variable value will also be displayed in the blue-yellow source information in the “Retrieved Segments.”



Variable value display in the source information of a coded segment

When the “Retrieved Segments” is exported, the source information of each segment will also be displayed upon demand.

11 Searching for Text: The Lexical Search

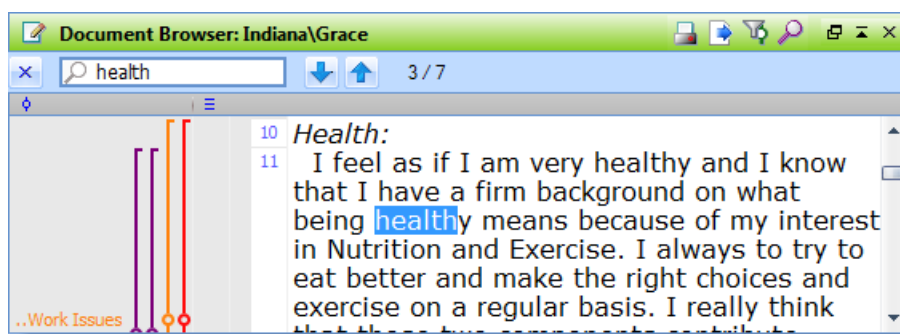
11.1 Lexical Search Options

MAXQDA offers three main ways to search in the texts or within each main window.

- ❑ Each of the four main windows has a toolbar at the top of it that contains a magnifying glass icon. Clicking on this opens a field where you can enter text to search for within that window.
- ❑ With the lexical search tool (the magnifying glass in the “MAXQDA standard” toolbar), you can search within all documents, memos, or coded segments. You also have the option of limiting this search to certain activated documents or document groups.
- ❑ The third option is to do an extended lexical search using Boolean operators.

11.2 Search in the Four Main Windows

All four main windows in MAXQDA have a magnifying glass icon in their toolbars. Clicking on this **icon** opens a search field. Below you can see the search field in the “Document Browser.”



Context search in the Document Browser

MAXQDA start to search as soon as you type the first character into the field. It carries out a classic search, meaning that it looks anywhere for that character combination, even if it's not found at the beginning of a word. Searching for “sic” will bring up words like “musical” and “sick.”

MAXQDA also shows you how often that particular search string has been found. In the example above, for example, you can see that “health” was found five times in the document, and the first hit is currently being shown. The arrow keys next to the numbers let you jump from one hit to the next.

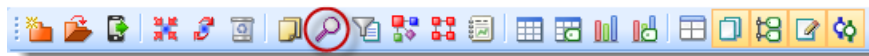


11.3 The Lexical Search: Options in the Dialog Window

The lexical search function allows you to research your documents without first coding them. You can do searches of either

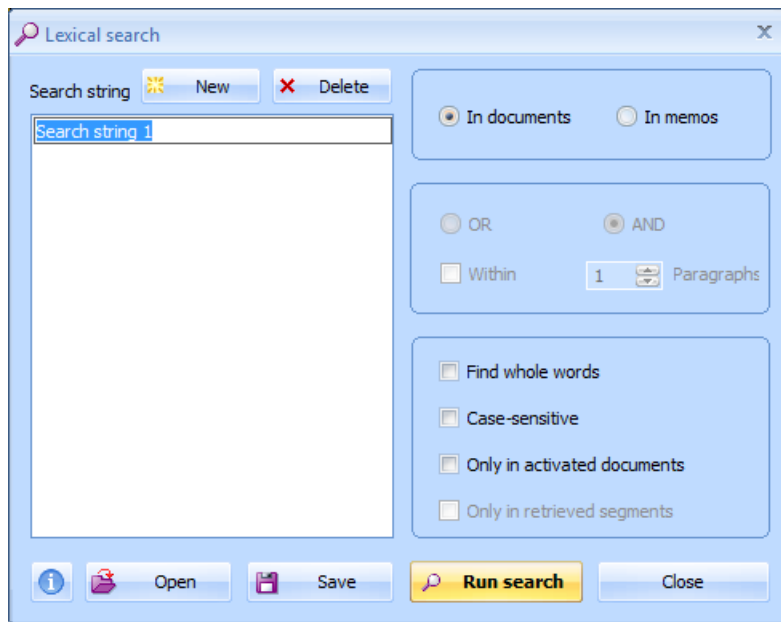
- ☐ documents,
- ☐ memos, or
- ☐ coded segments, which are currently shown in the “Retrieved Segments” window.

The search can also be limited to activated documents. You can choose to search in a single document, a document group, or all documents that have certain variable values. The lexical search function can be started by selecting **Lexical search** from the **Analysis** drop-down menu or by clicking on the magnifying glass icon in the “MAXQDA standard” toolbar.



Lexical search icon in the “MAXQDA standard” toolbar

After selecting to do a lexical search, the following window will appear:



The dialog window for the lexical search

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. You can specify that you want MAXQDA to match the case, or that you want to find only whole words. If the latter is the case, click the **Find whole words** check box.

Search strings may consist of one word, multiple words, or only of a part of a word. For instance, you can search for "Tom Hanks," "Hanks," or only "anks." Quotation marks are not necessary if a search string consists of more than one word.

Search strings may contain so-called wild card characters. The characters * or ? have the same effect as in search procedures well-known from Windows operating system.

- ☐ If the character "?" appears in a search string, MAXQDA finds, for instance, "Hanks" if the search string is "H?nks," but "Hunks" or "Hinks" would also be found.
- ☐ The character "*" stands for multiple characters, e.g. "H*ks" would find "Hanks" and also "Hawks."
- ☐ A certain beginning of a word is found by use of the character "<." The search string "<(inter)" would find "Interest," "interesting," but not "winter."
- ☐ A certain end of a word is found by use of ">." Thus, the string "(ks)>" would find "Hanks," "Banks," and "thanks," but not "Bankside."

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:

- ☐ First you need to select where you want to search: in **documents** or **memos**.
- ☐ If you choose to search in the documents, options will be accessible that were previously grayed out. One of these options is to only search within activated documents, for example, or to only search the retrieved segments currently shown in the "Retrieved Segments" window.

Other options:

- ☐ **Find whole words** – Search only for strings that 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 are capitalized as in the search string.
- ☐ **Only in activated documents** – Search only in activated documents. If no documents 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 combinations** – For searches with more than one search string. With OR checked: search for segments containing only one of the search strings. With AND checked: search for segments containing all of the search terms (their required position with respect to one another can be defined).
- ☐ **Within x paragraphs** – For searches for segments containing more than one search string (AND is checked). The search strings must be found within "x" number of para-



graphs. If you choose to search within 1 paragraph, only the paragraph in which the first string is found will be searched. If you choose to search within 2 paragraphs, and the first string is found in paragraph 12, paragraphs 11, 12, and 13 will all be included in the search for the second string.

As soon as you click the **Search button**, the search will begin.

In order to spare you the effort of typing in a long list of search strings again and again, MAXQDA can save the search settings. To do this, click on **Save**, enter a name, and click on **Save** again. This creates a search file with the file extension ".sea," which you can open and continue to use at a later time.

Depending on how many documents you search and how complex the search is, it could take a little time to find all of the results, which are then listed in table form:

11.4 Search Results

Your search results will be shown in a table that looks as follows:

Document	Search string	Page	Paragraph
New York\Teresa	family	1	24
New York\Joanna	family	1	27
New York\Jon	family	1	8
New York\Jon	family	1	24
New York\Kim	family	1	13
New York\Kim	family	1	17
New York\Kim	family	1	17
New York\Kim	family	1	17
New York\Kim	family	1	17
New York\Kim	family	1	17

Example search results

The toolbar at the top of the results window gives you access to the following functions:



Show as Excel table – the search table will be opened in XLS/X format in the appropriate program (usually Excel). If you have selected a section of the results table (marked yellow), only these will be included in the new table.



Show as HTML table – the search table will be opened as an HTML table in your standard internet browser. If you have selected a section of the results table (marked yellow), only these will be included in the new table.



Export – this function gives you the option to save the table (or the selected section of the table) in Excel, HTML, or RTF format



Autocode selected search results – brings up a window to allow you to choose a code to code all search results. If you have selected a section of the results table (marked yellow), only these will be autocoded.



Code selected search results with a new code – brings up a window to allow you to code the selected search results with a new code. If you have selected a section of the results table (marked yellow), only these will be autocoded.



Options – opens the options window, which allows you to change exactly how much of the context of each hit is to be coded or exported.



Autocode/Export: ignore hit – exclude selected rows from autocoding and exportation by clicking on this icon.

Attention: Coding hits in PDFs is limited to the actual string. It is not possible to code the sentence or paragraph in which the string was found.

The table of search results can be handled in the same way as other tables in MAXQDA: clicking on any column header will sort the table according to this criterion. For instance, clicking on **Document** will arrange the document names included in the table in alphabetical order. Clicking here again changes the sequence to descending order. A little triangle indicates the sort attribute and order (ascending or descending).

The entire table or parts of it can be copied to the Windows clipboard (by selecting all or part of it and pressing **Ctrl+C**).

Below the title bar, you can see how many documents contain the search string and how many times the search string appears in those documents. Clicking on a document in the “Document” column opens the corresponding document at the position of the highlighted search string.

11.5 The Extended Lexical Search

The “Extended Lexical Search” function, as with the simple search option, allows you to analyze your documents to a certain extent without having to have already done any coding. The searches can be carried out in:

- ☐ documents,
- ☐ memos, or
- ☐ the coded segments currently called up in the “Retrieved Segments” window.

The search can also be limited to those documents that are currently activated in the Document Browser.



The Boolean operator “OR” always has the highest priority. If you do a search, for example, for “climate change” AND “atom” AND NOT “war” OR “climate destruction,” MAXQDA will focus first on the OR, creating in practice the following formula: (“climate change” AND “atom” AND NOT “war”) OR “climate destruction”). The results will be those text segments that meet the first criteria *or* the second criteria.

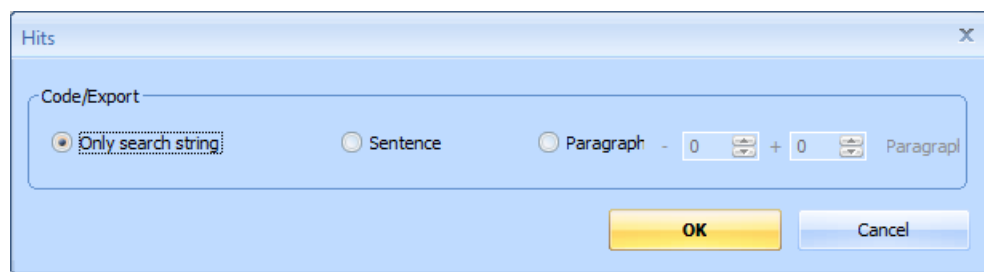
11.6 Exporting Search Results

The table of search results lets you export the results by clicking on the **Export button** at the bottom left of the dialog box. You can choose to export in XLS/X, HTML, or RTF format. The file will appear as follows:

New York\Teresa (24-24)
family
to go to college straight from high school in 1964 and become a teacher. I was a good student in high school graduating 19th in a class of 403. I really wanted to go to college, but my family couldn't afford it. Unfortunately, my mother had the attitude college was a waste for girls, because they got married and didn't put their college education to use. So, I never pursued the issue. I know, I shouldn't blame my mother for my not going to college. I could have been more enterprising and tried to find a way to pay for it on my own. I think never having been a teacher will always haunt me. Now it's too late. I'd have to take a large salary cut if I were to change professions at this stage in life.

Section of an exported results table with the option to include the paragraph in which the string was found

Each search result consists of the name of the document group and document, the paragraph number in which the search string was found, and the search string itself. The length of the retrieved segment can be determined beforehand. Click on **Options button**.



Options for the export/coding of search results

When exporting the search results you should select the option **Sentence** or **Paragraph** instead of **Only search string**. Otherwise only the search string would be written in the export file, which doesn't make much sense.

You can decide how many paragraphs to export:

- ☐ Paragraph = 0 – Only the paragraph that contains the search string will be listed. If the string occurs in the paragraph more than once, the paragraph will still be listed only once. The string will, however, be highlighted wherever it occurs.
- ☐ Paragraph +/- “x” – The paragraph that contains the string will be listed, as well as “x” numbers of paragraphs before and after this paragraph.

If the search string is found several times in the same paragraph and you have chosen the option to code only the search string, then it may happen that the same paragraph will be listed more than once. However, when you select **paragraph** as the unit to list, then the same paragraph will appear only once in the output file.

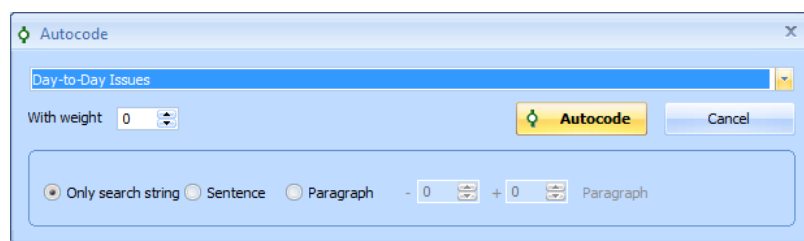
11.7 Autocoding Search Results

Traditional quantitative content analysis works with the technique of automatic coding based on a dictionary. Whenever a word or string is found, an entry is made in a matrix of categories. After scanning a text in this way, the matrix is filled with numbers. The text itself serves no further purpose; only the quantitative matrix is then analyzed.

This type of analysis is performed by programs like Textpack or Intext. MAXQDA's add-on module MAXDictio works in the same way. Automatic coding is a very fast and reliable procedure, but unfortunately it is very restricted semantically. This is because the analysis is based on single words and strings. Words may, however, have many meanings, and the meaning of a sentence or a paragraph is something other than a collection of separated, unrelated words. For this reason, automatic coding is not a usual procedure in interpretive text analysis. But under certain circumstances, and for heuristic reasons, automatic coding procedures may be useful in an interpretive analysis, particularly when analyzing open-ended questions.

In MAXQDA this automatic coding procedure is possible in conjunction with the document search procedure. You begin with a document search as described above.

To code the results displayed in the table, you only need to click on the button **Code**. The following dialog window is then opened:



Options for autocoding search results

In the options window that appears, you can:

- ☐ Select a code from the quick list (if the code you wish to use is not displayed here, just click the code in the "Code System").
- ☐ Choose the size of the segment to be coded (the search string, sentence, the whole paragraph, or even more).
- ☐ Assign a weight to the coded segments.



As soon as you click on the **Autocode** button, MAXQDA will start the coding procedure. If more than one hit is located in the same segment, this segment will of course only be coded once.

The size of the automatically coded segments depends on the properties chosen in the dialog box.

Here you may choose between the options **Only search string**, **Sentence**, and **Paragraph**.

"Only search string" means that only the string will be coded (this is similar to coding with the manual **In-vivo button**).

"Sentence" means that you code the sentence surrounding the search string.

"Paragraph" means that the paragraph(s) surrounding the search string are also coded. The exact number can be specified:

- ☐ Paragraph = 0 – only the paragraph that contains the search string will be coded. If the string occurs in the paragraph more than one time, the paragraph will still be coded only once.
- ☐ Paragraph +/- "x" – the paragraph that contains the string will be coded, as well as "x" numbers of paragraphs before and after this paragraph.

When you view the result in the "Document Browser," the string will be highlighted wherever it occurs.

Note: Automatic coding operations are added to the "Undo" list, allowing you to correct any mistakes easily, no matter how many segments are coded in one operation.

11.8 Autocoding Focus Groups

When working with focus groups the automatic coding functions can be used to assign the name of the speakers automatically. This only works in a fast and reliable way if you respect some rules for your transcription:

Whenever the speaker changes, start a new paragraph and always use the same notation for the same speaker, for instance "JOHN SMITH." Make sure that this string never occurs in the text itself. Do not use the Return key inside a speaker's turn; every turn should be one paragraph!

The automatic coding of speakers will work as follows:

1. Start the lexical search procedure.
2. Type in the search string "JOHN SMITH."
3. Choose the option **Case sensitive**.
4. Start the search by clicking the button **Run search**.

5. Define a new code "John Smith" in the "Code System."
6. Code all hits, select paragraph = 0 as the context to code.

11.9 Keyword in Context (KWIC)

MAXQDA creates a list of the search results obtained as described in the preceding sections. This "KWIC" list can be saved as a file, in which not only the line of text in which the sought-after word, or "hit," is found, but also the surrounding text is saved, in the form of expanded KWIC listings. The position of every hit in the document, i.e. the paragraph that contains the hit, is also listed. The amount of surrounding text, defined as a certain number of paragraphs can be determined. The procedure is as follows:

1. Type in the search string(s) as described in the previous section.
2. Select the number of paragraphs to be listed in the **Options dialog field**.
3. At this point, you have three ways of forming your KWIC listing:
 - i.) Click on the **Export icon** in the toolbar. This will save the results in a file in XLS/X, HTML, or RTF format. This file can then be printed, edited, or imported into other programs.
 - ii.) Click on the **Show as HTML table** or **Show as Excel table** icons in the toolbar. This will display the results in the chosen format. This file can also subsequently be printed, edited, or imported into other programs.
 - iii.) Create a new code in the "Code System," left-click on the code to transfer it to the quick list, and autocode the search results with this code.

The third method is more flexible, since you can then load the KWIC list into the "Retrieved Segments" window, check the list, and remove any undesired segments (by right-clicking on the information box on the left of the segment and selecting **Delete** from the context menu).

The final result, the corrected KWIC list, can be printed by selecting the menu option **Print > Retrieved Segments** from the **Project** drop-down menu. It is also possible to export or copy the KWIC list to the clipboard as well.

The KWIC list has the following structure: each hit starts with the information on the document source (document group, document name, and the paragraph number containing the hit). The next line indicates the search word or search string that has been found in that paragraph. Finally the text segment itself is listed.



New York\Milly (23-23)
family
family
Family, 09 : My family my parents, my children, are very close. We share dreams and holidays and have much warmth with each other.

New York\Mary (7-7)
family
I am pretty happy with my health situation. I get sick very rarely and when I do, it is only for a short amount of time. I think this can be attributed to the fact that I eat right and exercise semi-regularly. However, my family has a history of breast cancer and diabetes and I worry very much about contracting them.

Printout of search results from a file

11.10 Autocoding Answers to Open-Ended Questions

11.10.1 General Problems Analyzing Open-Ended Questions

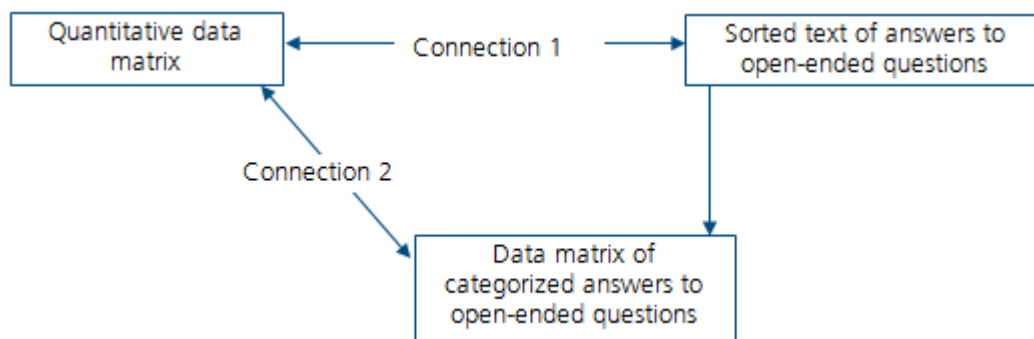
MAXQDA doesn't only offer special functions for entering and analyzing answers to open-ended questions. There aren't any general rules or regulations for analysis strategies for open-ended questions. It depends a lot on the amount of material, the sample size, and the depth of the analysis.

Example

Anthropologist Kate Mac Queen reported on an AIDs research project at the U.S. Center for Disease Control and Prevention. The epidemiological study was conducted in four phases with a total of 1,267 test subjects. Every phase of the study include open-ended questions.

Regardless of the method, it is likely that you would want to be able to connect the categorical and the quantitative data.

You would be dealing with the following situation:



At the beginning you would use a quantitative data matrix and transcribed answers, which will be analyzed categorically and transformed into a standardized data matrix. This first connection between the quantitative data matrix and the transcribed answers is easy to make in MAXQDA: the quantitative data matrix can simply be imported via the **Import** function in the **Variables** drop-down menu. If you entered the text of the answers to the

open-ended questions as described above, no further steps are necessary for descriptive and group-specific analysis.

11.10.2 Analysis Techniques Without Categorization of the Answers to Open-Ended Questions

Creating an Overview of the Answers

You can get an overview of the answers given by all the test subjects to a particular question with the standard retrieval function. Simply activate all documents representing the test subjects you want to include, and activate the code in the “Code System” for that question. You will then see all of the answers to that question in the “Retrieved Segments” window.

Comparing Answers to Various Questions

Let’s say that you wanted to compare the answers to two questions – question 2 and question 4:

You would activate the two codes that represent these questions in the “Code System” along with all of your documents. Check to make sure that the retrieval mode is set to the standard OR in the “Analysis” drop-down menu, and set the “Retrieved Segments” window to order according to document. This will give you the following results in the “Retrieved Segments” window:

- ☐ Interview 1 answer to question 2
- ☐ Interview 1 answer to question 4
- ☐ Interview 2 answer to question 2
- ☐ Interview 2 answer to question 4, etc.

Selective Listing of Answers According to Subject Group

This form of analysis requires the quantitative data matrix and the sorted answers to the questions. The matrix of quantitative data must first be imported into MAXQDA as document variables. This is possible via the import function in the “Variables” drop-down menu.

Once the matrix has been imported, you can use it for standard activations by variable. With this form of selective retrieval, documents will be activated based on their assigned values for certain variables, and only answers from these documents will be listed in the “Retrieved Segments” window. The only additional requirement is that you also activate the appropriate code(s) in the “Code System.”

11.10.3 Categorizing Answers to Open-Ended Questions with Autocoding

When categorizing answers to open-ended questions, is necessary to differentiate between the methods autocoding and manual coding. The advantages of autocoding are clear when



working with over 1,000 subjects, as in the example above. The process is quick and reliable, so you save time and money. Unfortunately, there are also drawbacks: only words and phrases are coded, which could have several meanings, so the actual meaning of the coded segment can't be ensured. In addition, it is obviously impossible for the autocoding function to "read between the lines."

Opinions, attitudes, and beliefs are therefore difficult to autocode, although pragmatic considerations may push you to do so in certain cases.

Autocoding is a special focus of quantitative text analysis programs like Textpack and Intext. There the coding is almost always dictionary-based. The dictionaries are usually made up of single words, but can also include word orders. MAXQDA offers an add-on tool MAXDictio, which can be used for such dictionary-based coding.

Example

Bos/Tarnai (1996, S. 39f., Computerunterstützte Inhaltsanalyse in den Empirischen Sozialwissenschaften) did a content analysis of the Association of Students and Teachers for Academic Education, creating a total of 18 categories. Category 5, for example, was defined as follows:

"K05 – Academic Orientation

Sections that show academic interest, specifically in a specialization, or refer to an aspect of specialized training/education.

Code example: comments about excellent researchers, research focuses"

The dictionary is made up of single words and phrases that obviously connect to a certain category (and only this category). The following phrases, for example, would obviously connect only to category 5:

- ☐ "good research raises the standard of learning"
- ☐ "must be grounded in research"

The documents are searched through for any of these words or phrases in the dictionary. As soon as one is found, it is automatically coded. You will then get a table like the one showed below, which contains a row for each coding that was made.

Document	Case Variable	Category
Interview 1	M 25 single	5
Interview 1	M 25 single	6
Interview 1	M 25 single	5
Interview 2	W 31 married	1
Interview 2	W 31 married	5

Matrix Type A: Category of Coded Segments

This matrix can also be then aggregated in a table as seen below with documents on the y-axis, and variables on the x-axis. Each cell then contains the number of times each category was found in each document.

Document	Case variable	C01	C02	C03	C04	C05	C06
Interview 1	M 25 single	0	0	0	0	2	1
Interview 2	W 31 married	1	0	0	0	1	0
...							
Interview n							

Matrix Type B: Number of coded segments per category in each document

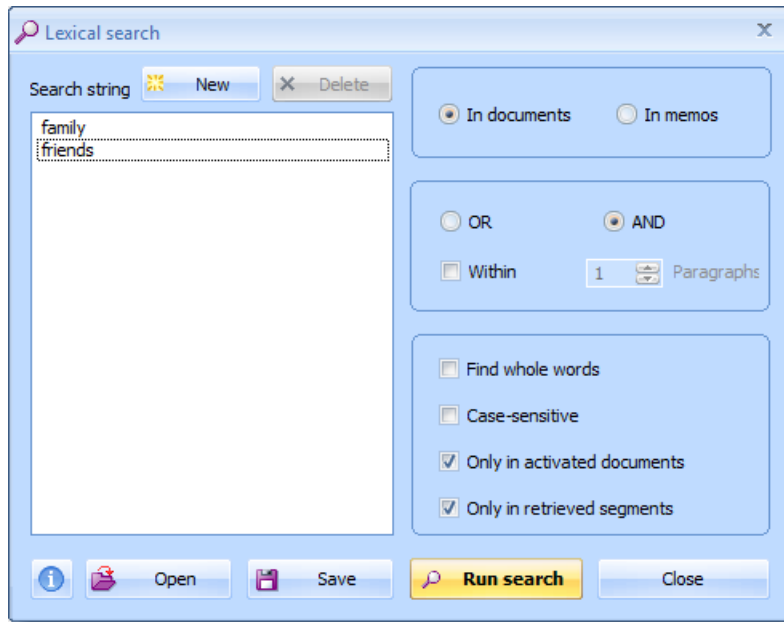
This matrix allows for a number of analysis techniques, such as:

- ☐ Descriptive category statistics: which categories occur? How often? And which occurs the most often?
- ☐ Creation and comparison of category means (on average, C05 occurred 1.3 times per document, C06 2.5 times per document, etc.).
- ☐ Comparison of means (e.g. Educators mentioned C05 significantly more than the students).
- ☐ Cluster analysis, multiple correspondence analysis (MCA), and latent class analysis (search for patterns and category correspondence)
- ☐ Cluster correlation analysis with case variables (gender, age, education, etc.).

Content analysis based on autocoding – as described above – can be performed very well with quantitative research programs like Textpack, Intext, and others. Automatic coding is actually a process outside of the qualitative method spectrum and outside of the focus of MAXQDA. It is, however, possible to apply such methods in MAXQDA with autocoding functions.

Process for Autocoding

- ☐ Activate all documents.
- ☐ Activate the code that represents a question number.
- ☐ Choose **Lexical search** from the **Analysis** drop-down menu and enter the search string. In the following example, “friends” and “family” were entered as the strings.



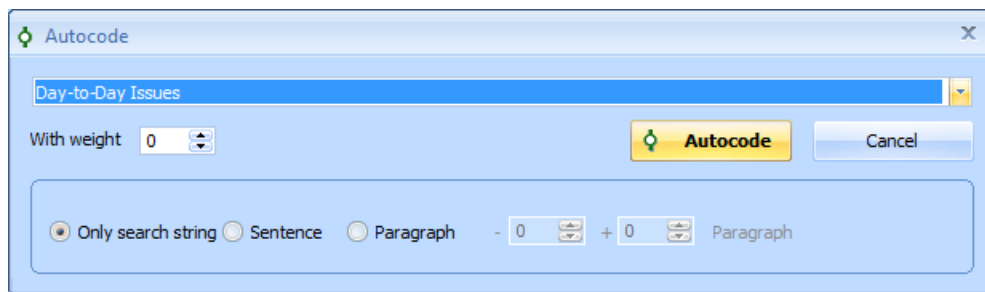
Dialog window for the lexical search

It is necessary that you check the boxes next to **Only in active documents** and **Only in retrieved segments**, so that you won't be including the entirety of all of your documents.

Whether you want to **Find whole words**, make the search case sensitive, or use the **OR** or **AND** options is up to you.

After clicking on the button to **Run search**, a table with a list of hits will appear. Now you would just need to code these segments that were found. In order to do that, the code that you want to code with must be in the quick list. Simply click on that code in the "Code System" to add it to the list.

This new category could be name "People," for example. Before you choose to carry out the coding, though, it is necessary to choose how much context should be included in the coded segment.



Options for autocoding search results

You can choose to code ...

- ☐ only the search string,
- ☐ the **sentence** in which the string was found,

- ☐ the **paragraph** in which the string was found, or
- ☐ the **paragraph** plus a number of paragraphs before and/or after it.

If you click now on the **Autocode** button, all of the search results will be coded with the code shown in the quick list field. All of these new coded segments will be added to the “Retrieved Segments” window. Later, you can export this table of coded segments to SPSS for quantitative analysis.

The Coded Segments Table can be aggregated in SPSS to a document like in Matrix B above (cases x categories). The display of the file is similar to the way it looks in Excel. In SPSS, you also have the option of merging this Coded Segments Table with the quantitative data matrix and analyze them together.

The aggregated matrix can be created and exported by choosing **Reports & export > Matrix of code frequencies** from the **Project** drop-down menu. You can save the file in XLS/X or TXT (tab delimited) format. The file is set up as follows: the first column shows the document group, and the second column shows the document name. The next columns show the code names in their complete form (code\subcode with a backslash separating codes and subcodes). The individual cells then show the number of times each code was assigned in each document.

	A	B	C	D	E
	Document group	Document name	Interview Guide Topics\Health	Interview Guide Topics\Overall	Interview Guide Topics\Recreation
1	New York	Teresa	0	0	0
2	New York	Joanna	1	1	1
3	New York	Jon	2	1	2
4	New York	Kim	1	1	1
5	New York	Milly	0	0	0
6	New York	Mary	1	1	1
7	New York	George	1	1	2
8	New York	Vincent	5	1	1

Exported Matrix of code frequencies in Excel

MAXQDA handles these coded hits from the lexical search exactly like any other coded segments. In this way, you can search for code combinations and do focused selective analysis based on certain variable values.

11.11 Categorizing Answers to Open-Ended Questions with the Help of the Variable Table

The standard way to code open-ended survey questions as often described in literature on methods starts with a systematic analysis of a section of the data set, out of which a category system can be developed. Coders are then trained and set to work on the rest of the data set with these categories.



Example

Subjects in a study were asked to describe their visions for life as it would be in the year 2020. The answers were transcribed and imported into MAXQDA. In the first step, five categories were created, which came out of the initial analysis:

- ☐ Vision of technology
- ☐ Vision of communication
- ☐ Vision of self
- ☐ Vision of health
- ☐ Vision of the environment

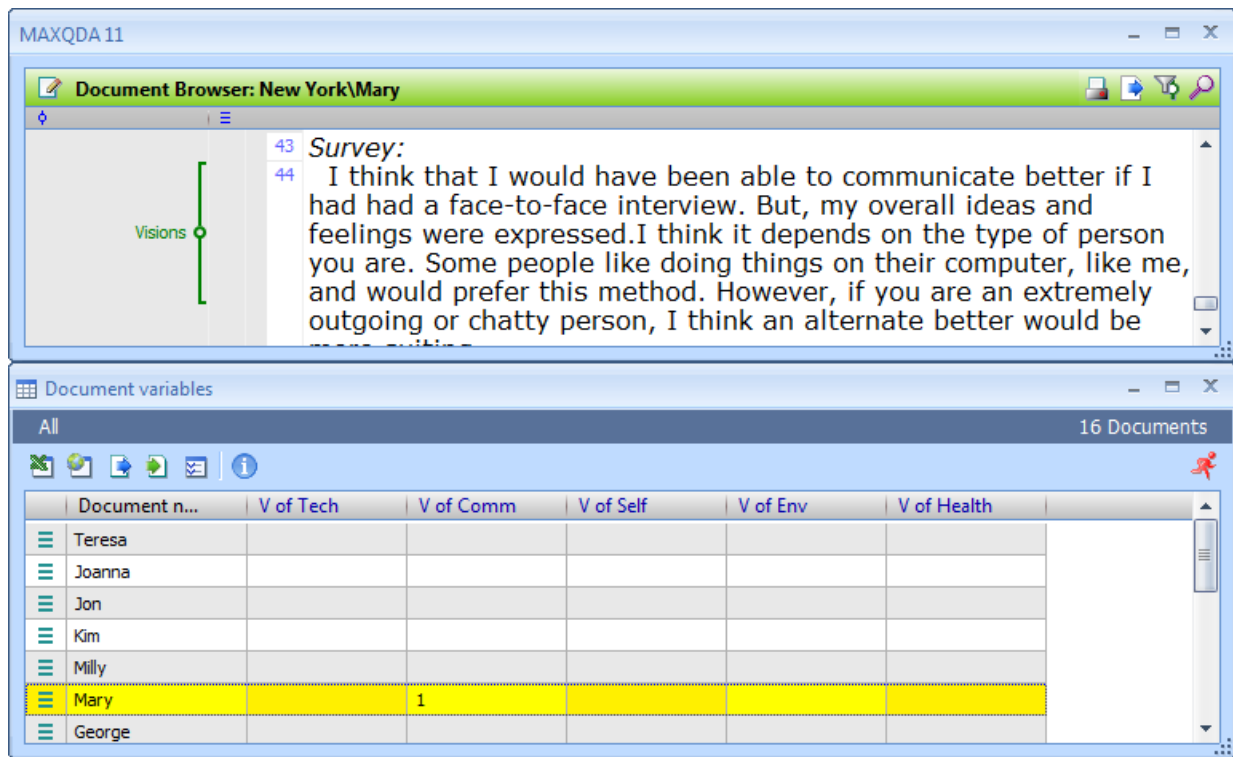
We can set these five categories as variables with a simple dichotomous 0/1 scale (instead of 0/1, we could also just y/n):

- ☐ Code 1 – the topic was mentioned in the answer
- ☐ Code 0 – the topic was not mentioned in the answer

The steps in MAXQDA are as follows:

- ☐ The texts to be analyzed must be in the “Document System.”
- ☐ Select the **List of variables** from the **Variables** drop-down menu and create the variable for each category with the **New variable** button in the toolbar. The variable type should be set as **integer**.
- ☐ Now switch to the data view by clicking on the appropriate icon in the toolbar.
- ☐ It is recommended that you right-click on a column header and select to only view those variables in the table that are currently needed before you begin coding.

Now you can set up your screen in a practical way with the “Document Browser” at the top of your screen and the variable matrix on the bottom half.



Optimal window layout with the "Retrieved Segments" and the document variables table

In the above text "Mary," communication is mentioned. So, we need to change the value of "V of Comm" (vision of communication) for Mary from 0 to 1. We can do this as follows:

Clicking once on the coding stripe for "Visions" in the coding column of the "Document Browser" will highlight the corresponding row in the variable matrix. You can now double-click on the appropriate cell (Mary x V of Comm) and enter "1." You can then proceed with all of your "Visions" coded segments in the same way. You can also split up this work between people in your team. Every inputted variable value is saved immediately.

Another option for this process is with the help of the "Overview of coded segments." You can then go from row to row, systematically viewing each coded segment. The rest is as described in the previous example.



The screenshot shows two windows from a data analysis software. The top window, titled 'Coded segments', displays a text segment and a table of coded segments. The bottom window, titled 'Document variables', displays a table of variables for 16 documents.

Coded segments window:

7 coded segments from 2 documents and 1 document groups

Text segment: I think that I would have been able to communicate better if I had had a face-to-face interview. But, my overall ideas and feelings were expressed. I think it depends on the type of person you are. Some people like doing things on their computer, like me, and would prefer this method

	Comment	Document	Code	Begin	End	Weight score	Preview
○		Mary	Visions	9	9	100	I feel okay ab...
○		Mary	Visions	13	13	100	I have not had...
○		Mary	Visions	44	44	100	I think that I ...

Document variables window:

All 16 Documents

Document n...	V of Tech	V of Comm	V of Self	V of Env	V of Health
Teresa					
Joanna					
Jon					
Kim					
Milly					
Mary		1			
George					

Optimal screen layout with the “Overview of coded segments” and the variable matrix

One advantage of using this approach rather than applying codes is that the results are already together with other quantitative information in a table. You can also use these variable values to do automatic activations.

Tip: It is also possible to create codes out of the five categories, code the segments, and then transform the codes into variables.

The entire data matrix can be exported by selecting **Variables > Export data (document variables)** from the drop-down menu. You can then open this matrix for further quantitative analysis in a program like SPSS.

12 Retrieval: Finding Coded Segments

12.1 Activation: The Principle of Segment Retrieval

In MAXQDA, you can search for information in your documents in a variety of ways. One method is to search for particular words or character strings with the lexical search function. You may be familiar with this search method from text-processing programs. The principle is basically the same in MAXQDA, with the advantage that you can search many documents simultaneously for the words. A lexical text search finds only those terms that actually appear in the text. Searching with theoretical concepts and subject categories, such as “Helper Syndrome” in a study of volunteers in social work, will naturally not provide any results.

By assigning codes to appropriate document segments, you be able to find segments that relate to a certain theme. This finding of coded segments, also known as retrieval, requires only that you have created codes and assigned them to those document segments. After you have assigned codes to the document segments, you will be able to call up all segments that were coded with the same code. MAXQDA offers various ways to do this retrieval, but it is all based on activation of documents and codes.

The following explanation applies not only for texts, but also for coded segments of images and PDFs. The more complex retrieval functions – which show, for example, the proximity of codes to one another – can only be used for text documents.

The retrieval principle in MAXQDA is very simple:

All document segments from activated documents that were coded with any of the activated codes will be called up and shown in the “Retrieved Segments” window.

Activating Documents

First the documents: All documents and document groups are listed in the “Document System.” When you import a document, it appears in the “Document System,” but it isn’t at that point opened or activated.

The starting point, then, is an inactivated document. The status of the document – whether activated or not – can be seen by its color. Inactivated documents are blue-green, and activated documents are red.



An inactivated (left) and an activated (right) document

And how do you activate a document? There are two ways to activate documents:



1. Activation via the Context Menu

The first way to activate a document is with the context menu. Simply right-click on the document and select **Activate**.

You will know that the document is activated, because it will turn red.

In the same way, you can activate entire document groups. Right-click on the document group and select **Activate all documents**.

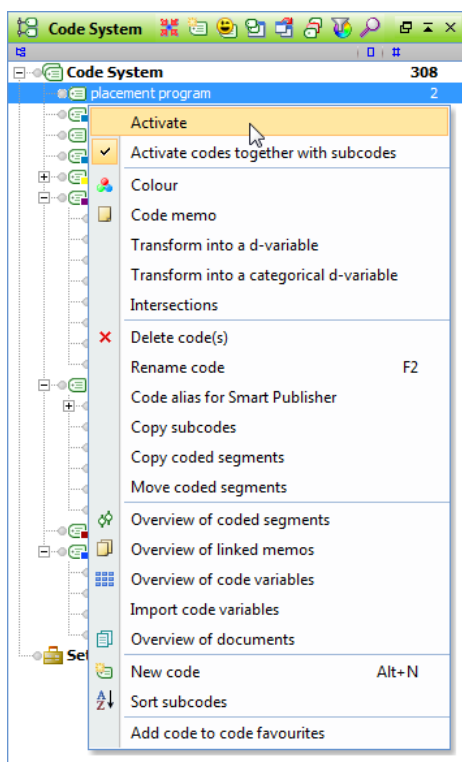
You can even activate all documents in your entire project at one time by right-clicking on the **Documents icon** at the top level of your "Document System" and selecting **Activate all documents**.

2. Activation with the Ctrl Key

Tip: There is an even easier way to activate than via the context menu: simply hold the Ctrl key on your keyboard and click on a document, document group, or the "Documents" icon.

Activating Codes

Activating codes works in the same way as for documents. Either right-click on a **code** and click to **activate** or hold the Ctrl key and click on the **code**.

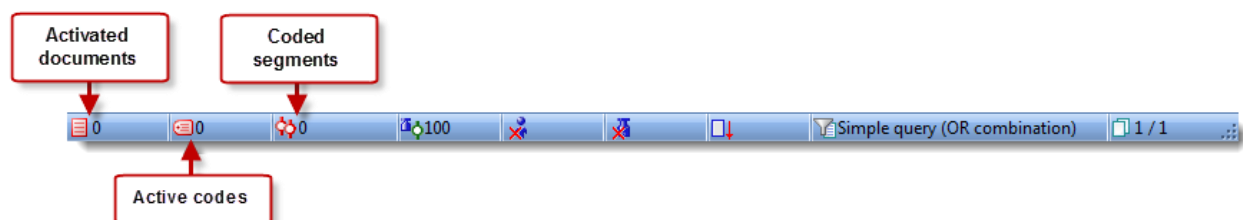


Activating a code via the context menu

Activated codes are also visualized in red.

Activation Status in the Status Bar

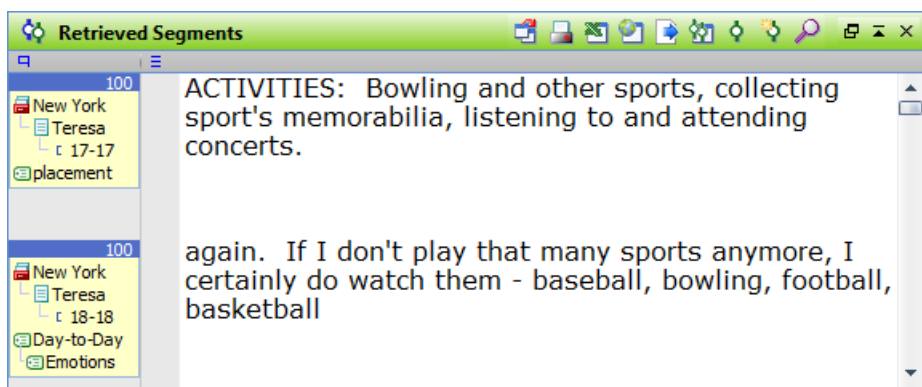
The status bar at the bottom of the MAXQDA window gives you information about the number of activated documents, activated codes, and the number of document segments that are being called up based on those activations.



Activation information in the status bar

When you activate a parent code, your settings will determine whether the subcodes are automatically activated with it. You can change this setting by right-clicking on a code and clicking on **Activate codes together with subcodes**. If a checkmark was showing next to that line, selecting it will remove this checkmark, and subcodes will not automatically be activated with the parent code. Your settings for that code will be saved until you change them again.

All of the document segments that were found based on your activations are called retrieved segments or coded segments and are shown in the “Retrieved Segments” window.



Called up document segments (coded segments) based on activated documents and codes

You also have the option of automatically activating documents based on their variable values. This is known as “Activation by variable” in MAXQDA.

Attention: If you are working with an extraordinarily large data set, your computer's memory could be overwhelmed by retrievals that pull from every single document in your “Document System.” For this reason, it is recommended that you do not activate all codes and all documents at once when doing retrievals in unusually large projects.

Example

Let's say that you wanted to know what certain interviewees (e.g. Joanna, Kim, and Vincent) said about other people in their lives. You would start by activating the appropriate documents in the "Document System:"

- ☐ Hold the Ctrl key
- ☐ Left-click on the document "Joanna"
- ☐ Left-click on the document "Kim"
- ☐ Left-click on the document "Vincent"


Next, you will need to activate the appropriate code. In this case, the code is called "People." If there are subcodes for this parent code, those subcodes will be activated as well (assuming you have not changed the default settings).

You can now see some basic information about your activations in the status bar. It shows that you have activated three documents and five codes (this includes the four subcodes of "People"). You can also see that 27 document segments were retrieved based on those activations:



Activation information found in the status bar

12.2 Activation by Color

Documents and codes can be activated manually (by clicking on them), automatically (via **activation by variable**), and also by color. There is a symbol  in the toolbars in the "Document System" and the "Code System" that lets you select the colors to be activated.

After clicking on this button, a dialog field appears with all the colors that have been used for documents/codes so far. You can then check the box next to the colors to be activated. The two radio buttons at the top also let you check or uncheck all of the colors with a single click.



The colors representing codes or documents to be activated

12.3 Removing Activations (Deactivation)

When you want to start a new retrieval, but already have documents and codes activated from a previous retrieval, the easiest way to proceed is to automatically deactivate all of those documents and codes.

In the "MAXQDA standard" toolbar, you will find a button that resets all activations, both document and code activations. It is right between the buttons for opening a project and activation by variable.



Button to "Reset activations"

If you want to reset activations for only the documents or only the codes, you can do so with the button available in the "Document System" or "Code System" toolbars.



Button to "Reset activations" for all documents in the Document System



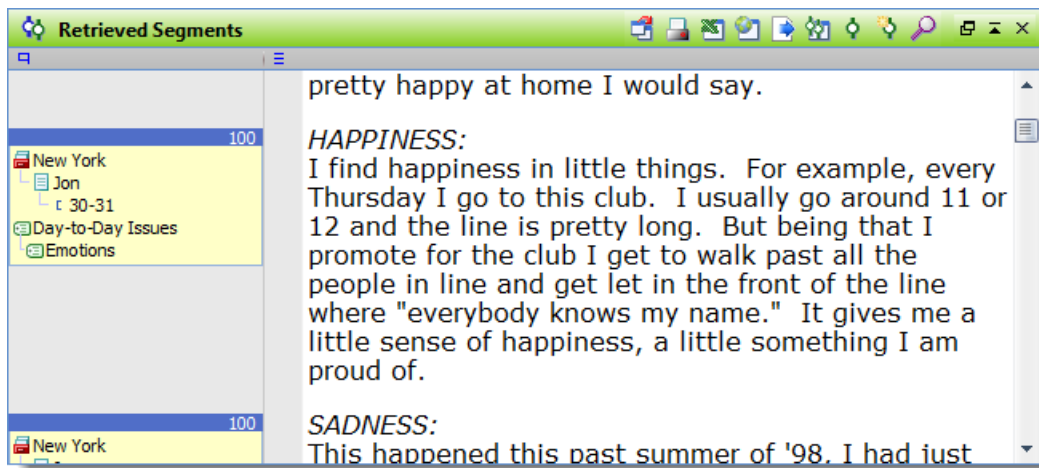
Button to "Reset activations" for all codes in the "Code System"



It is also possible to deactivate all codes or documents by right-clicking on the **Documents icon** in the “Document System” or the **Codes icon** in the “Code System” and selecting **Deactivate all documents** or **Deactivate all codes**.

12.4 The “Retrieved Segments” Window

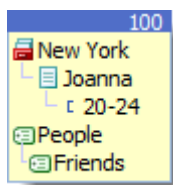
The “Retrieved Segments” window is a results window – it shows you all of the coded segments that were coded with any of the activated codes in any of the activated documents.



The “Retrieved Segments” window

Next to each retrieved segment (default is on the left side), you will find a yellow info box about each retrieved segment and a memo column, showing any memos that were attached to the retrieved section of the document.

Tip: If you want, you can also move the info boxes to the right side of the “Retrieved Segments” window, but the memo column always remains on the left.

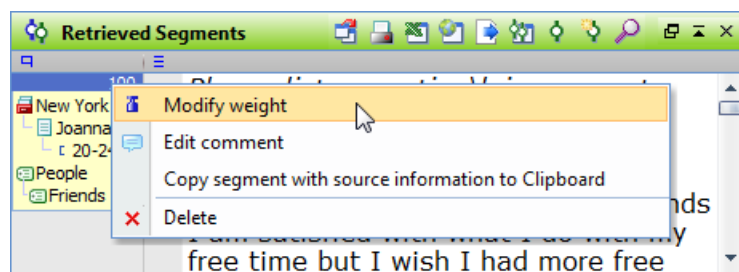


Info box for a retrieved segment

The info box above can be read as follows: the segment came from paragraphs 20-24 in the document “Joanna,” which is in the Document Group “New York.” The segment was coded with the code “Friends,” which is a subcode of the code “People” and the weight score for the coded segment is “100.”

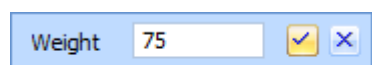
Tip: If you click on any part of the info box, the associated document will automatically be opened in the “Document Browser” window at that part of the document where the associated coded segment can be seen (paragraphs 20-24). This segment is also highlighted. The associated code is also highlighted blue automatically in the “Code System” window.

If you right-click on the info box, you will see the following context menu:



Context menu for the yellow info box

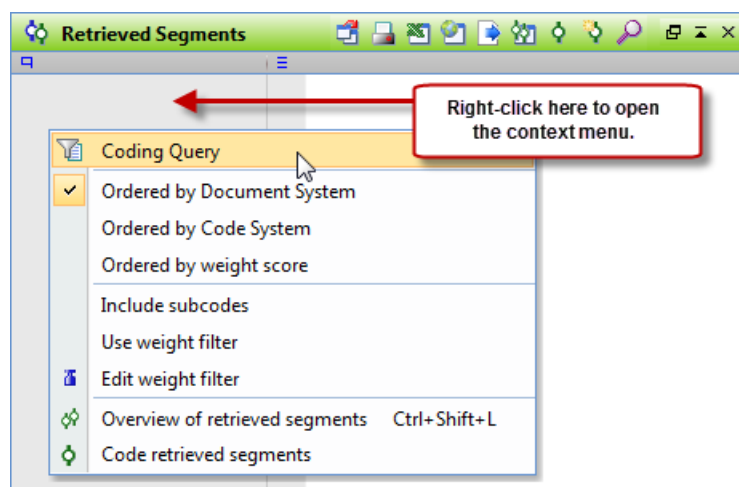
It is possible here to delete the particular coded segment, but that does not delete the actual code from the “Code System” or the document segment from the document. You will have to confirm your deletion. You can also change the weight score for the coded segment. If you select **Modify weight**, the following window will appear:



Modifying the weight score of a coded segment

Sorting of “Retrieved Segments”

You can also carry out other functions by **right-clicking** on a **gray area of the “Retrieved Segments” window in which the yellow info boxes appear**. These same functions are also available in the **Analysis** drop-down menu.



Context menu that appears when you right-click in a gray section of the column



The next few functions in the context menu affect the sorting of the retrieved segments. There are three possible variations:

- ❑ **Ordered by Document System** – this means that the segments are listed in the same sequence as in the “Document System.” The list starts with the segments of the first activated document in the “Document System,” then those of the second activated document are given, and so on. Search results in this order would let you compare what one respondent said to different selected topics. For example, given that the first respondent’s answers were contained in one document or interview, followed by a second respondent’s answers in a separate second interview, all of the retrieved segments from the first interview would be listed before those from the second interview.
- ❑ **Ordered by Code System** – this means that the segments are listed in the same sequence as the codes in the “Code System.” All of the segments assigned the same code are listed one after the other.
- ❑ **Ordered by weight** – This sorts the segments according to the weight that has been assigned to them.

12.5 Hierarchy of Codes in Retrieval

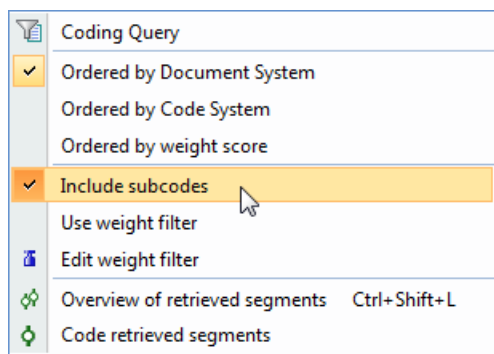
A hierarchical system of codes can be constructed with MAXQDA. The program offers an easy way to make use of the hierarchical structure.

Example

Imagine you want to check if there are co-occurrences of Code A and Code B, and Code B has two subcodes, B1 and B2. If you activate these codes, in total four codes would be activated: A, B, B1, and B2. Now, when selecting the **Intersection** or **Overlapping** options, MAXQDA will search for text passages where all of the four codes are present. Obviously this is not what you want, since it is very unlikely that there are segments to which all four codes are attached. (Code B1 and Code B2 are likely exclusive: either B1 or B2 is attached but not both of them.) To get the desired result, you would have to split the analysis in three parts:

1. Search for co-occurrences of Code A and B1.
2. Search for co-occurrences of Code A and B2.
3. Search for co-occurrences of Code A and B.

This is obviously a very inconvenient way of getting results, particularly if a code has many subcodes or even different levels of subcodes. MAXQDA does, however, offer an easier way. Simply click to **include subcodes** in the context menu.



Subcodes will be included

It is also shown in the status bar, whether or not the subcodes (or “code children”) are included. If the symbol is crossed out, the subcodes are not included. You can also change this setting by double-clicking on this icon.

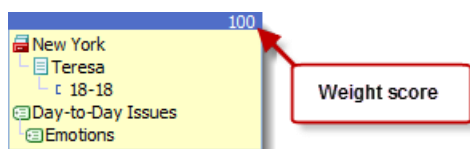


Subcode inclusion shown in the status bar

Going back to the example above: if both Code A and Code B are active, and **include subcodes** is selected, MAXQDA will find all co-occurrences of Code A (or any subcode of Code A) and Code B (or subcodes of Code B)

12.6 Finding Coded Segments Using Weight Scores

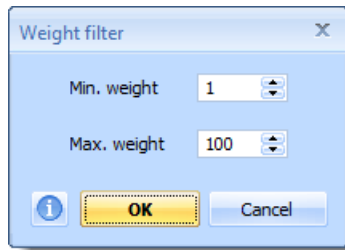
The context menu also lets you choose whether or not weight scores should be used to filter your results. You will see the weight score of each retrieved segments at the top-right of the corresponding yellow info box.



Weight score in the info box next to each retrieved segment

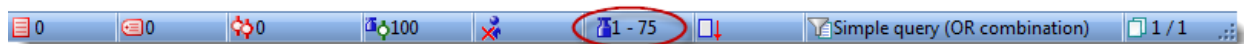
These weight scores can be used for the retrieval process. The user can define a range for the weight scores in order to retrieve only those document segments with scores inside of that range.

If you choose to activate the weight filter, the following window will appear. You can enter any numbers between 0 and 100.



Weight filter

This will cause only those segments to be displayed in the “Retrieved Segments” window that have a weight score within the defined range. The weight filter affects all retrieval functions, including complex functions like “Intersection.”





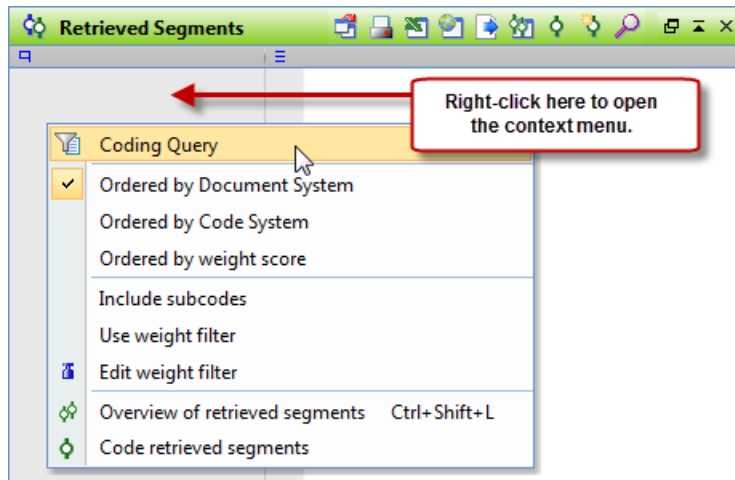
Display of weight filter in the status bar

The status bar at the bottom of your screen contains information about the document and codes that are currently active as well as the weight option, symbolized by the paper-weight. This icon tells you if the weight filter is active or not, and its range, if it is. In the figure above, the weight filter is active with a range from 1 to 75. This means that only those codes that have been given a weight score between 1 and 75 will be displayed.

12.7 The Coding Query Tool

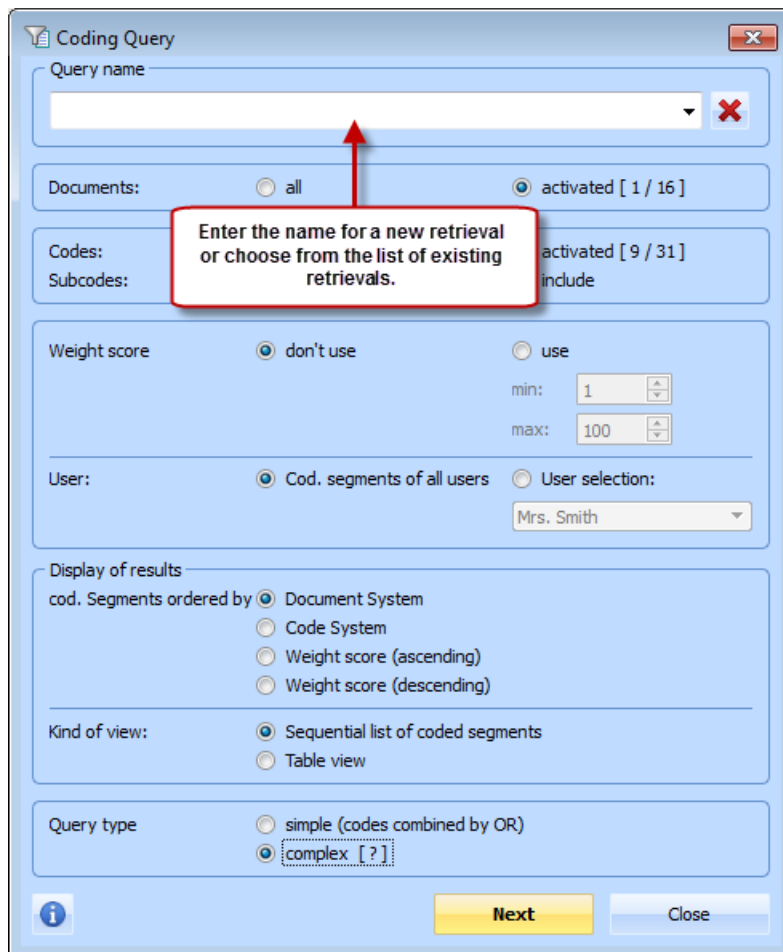
The Coding Query tool facilitates the retrieval process and the compilation of coded segments. This tool allows you to control all essential settings from within a dialog window. Before calling up the Coding Query tool, you should activate the selected documents and codes. You can call up the Coding Query tool:

- ☐ From the menu **Analysis > Coding Query**
- ☐ By clicking on the **Coding Query**  button in the “MAXQDA standard” toolbar
- ☐ By double-clicking on the **Coding Query**  button in the status bar at the bottom of the screen; or
- ☐ By right-clicking in the left-hand column of the “Retrieved Segments” window and selecting Coding Query (in this case, you must click in the grey area, not on the information boxes indicating the origins of the retrieved segments.)



Accessing the Coding Query tool via the context menu in "Retrieved Segments"

The following window will then appear:



Coding Query window



When using the Coding Query tool for the first time, enter a query name in the <New> field. All subsequent selections within the project will now be saved under this query name and can be called up later.

Tip: To create more queries, open up the drop down menu with the list of query names and click on the top entry <new>.

You can determine various settings for the query from the dialog window:

Documents – Select whether all documents, or only activated documents, should be considered in the query. The number in brackets indicates how many documents are currently activated.

Codes – Same options as for Documents.

Subcodes – If selected, subcodes of codes will be included in the query.

Weight Score – The output of coded segments can here be limited to segments of a specific weight range.

User – The output of coded segments can here be limited to segments that were created by a specific user.

Cod. Segments ordered by – Specify the order in which coded segments will appear in the “Retrieved Segments” list.

Kind of view – Instruct MAXQDA as to whether the retrieved segments should be displayed in a list, or in a table view.

Query Type – The “Simple” query type is activated by default, resulting in the output of the retrieved segments of all activated codes (and their subcodes). There is also an option for complex queries, in which it is possible to e.g. search for overlapping or nearby codes. Find more information on complex queries in Complex Retrievals.

12.8 Jumping from Retrieved Segment to the Original Document

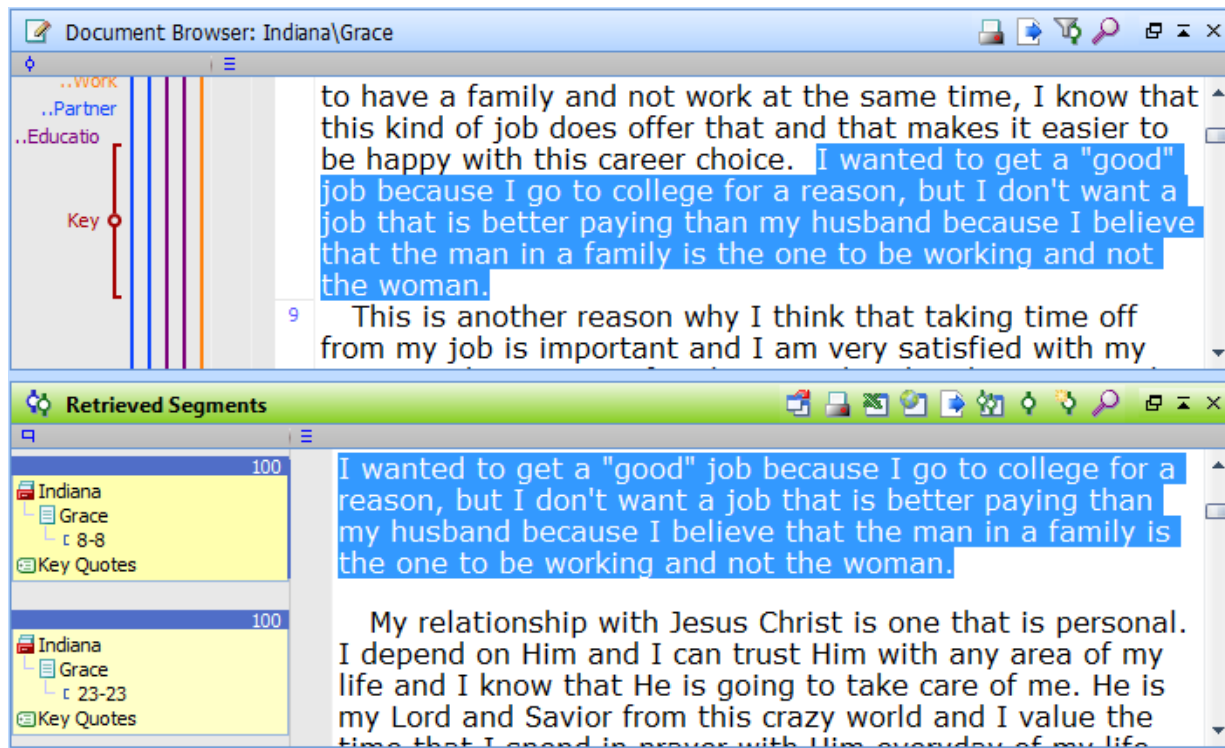
It is possible at any time to jump from a coded document segment in the “Retrieved Segments” windows to the original source document.

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

If you click anywhere in this box, the original document from which this segment was taken will be opened in the “Document Browser” window at the position of the segment in the document.

When examining the results of a retrieval, you should arrange your desktop as shown below. The source document is in the upper window, and the “Retrieved Segments” window

is below it. Then, whenever you click on a segment's information box, the source document will appear in the "Document Browser" window directly above it.



Optimal view for jumping between retrieved segments and the source documents

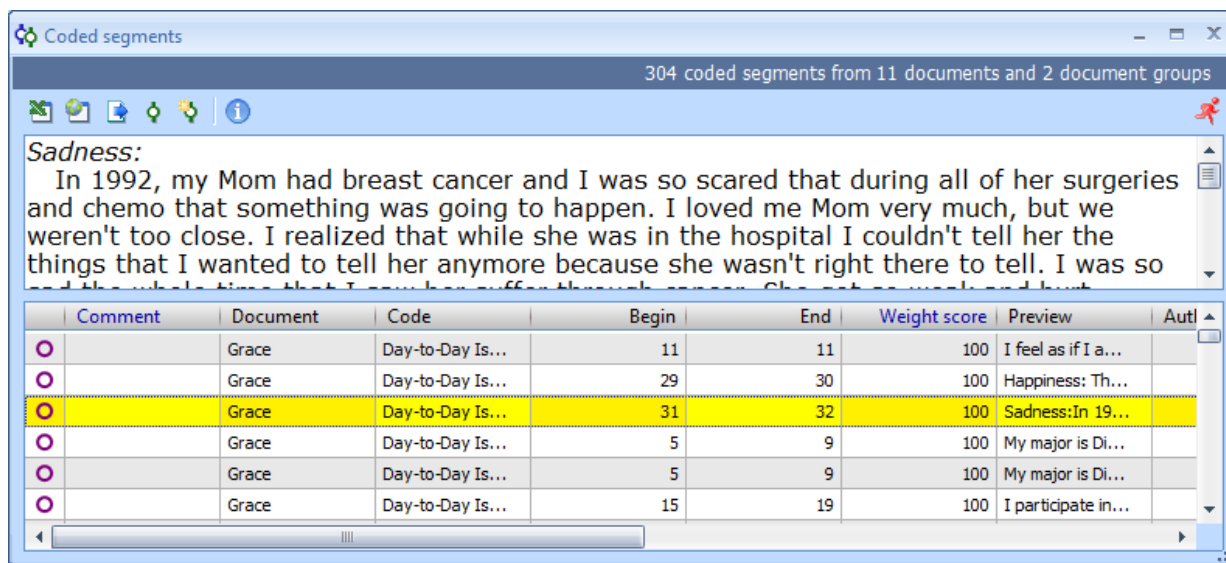
12.9 "Overview of retrieved segments"

An easy way to get an overview of the retrieved segments is by calling up the **Overview of retrieved segments** by clicking on the appropriate icon in the toolbar at the top of the "Retrieved Segments" window.



Opening the "Overview of retrieved segments" in the toolbar

This display combines a list view and a detailed view of the retrieved segments. The upper half of the window shows the segment that is currently selected in the lower part of the window. The lower part works in the same way as the other overview tables in MAXQDA. Clicking on the column's header will result in sorting the table corresponding to the values of the selected column. You may also switch the different columns on and off. Just right-click on a column header and select **Choose fields**. You can then specify which columns should be shown (**box checked**) and which should not (**box unchecked**). This kind of display makes it easy to browse through retrieval results. Just click on a line in the table and then view the segment in the upper part of the window.



The two windows in the "Overview of retrieved segments"

The option to display the retrieved segments in a table in XLS/X or HTML format is particularly helpful. This gives a very good overview: not only the segment in plain text but all the information around it is listed, for instance the date when the segment was coded and the name of the person who did the coding.

Tip: The overview table is also the best place to write comments on your coded segments. You read the segment in the upper window and write your comment below. Just double-click the field for comments in the matrix and type in your annotation.

The toolbar in this view includes the following functions:



Show as Excel table – opens a table in XLS/X format with the retrieved segments and associated information.



Show as HTML table – opens a table in HTML format with the retrieved segments and associated information.



Export retrieved segments – allows for export of the retrieved segments in RTF, HTML, or XLS/X format.



Overview of retrieved segments – opens a table view of the retrieved segments.




Code retrieved segments – the selected coded segments (marked in yellow) from the list will be assigned to an existing code. It is possible to select multiple rows by holding down the Ctrl key. If no rows are selected, the entire table will be coded.



Code retrieved segments with a new code – the selected coded segments (marked in yellow) from the list will be assigned to a new code. It is possible to select multiple rows by holding down the Ctrl key. If no rows are selected, the entire table will be coded.

Calling up the “Overview of retrieved segments”

The “Overview of retrieved segments” can be accessed in a number of ways. For an overview of coded segments currently displayed in the “Retrieved Segments” windows, the following options are available:

- ❑ from the menu **Analysis > Overview of retrieved segments**
- ❑ with the **Overview of retrieved segments**  button in the “Retrieved Segments” window
- ❑ with the keyboard shortcut **Ctrl+Shift+L**.

For an overview of all coded segments in a project, right-click on the root in the “Document System” or the “Code System” and select **Overview of coded segments**. You can also access the overview via the document group or document.

From the context menu of a specific code, you can call up the “Overview of coded segments” for this code, including its subcodes.

Tip: When you double-click on a code, the “Overview of coded segments” for this code, including its subcodes, will be displayed automatically.

What information can be found in the columns of the overview?

Regardless of the document type, the following columns of the coding overview have the same signification:

- ❑ **Document group** – document group from which the coded segment originates
- ❑ **Document** – document from which the coded segment originates
- ❑ **Weight** – weight of the coded segment (can be modified directly in the overview!)
- ❑ **Comment** – comment on the coded segment (can be modified directly in the overview!)
- ❑ **Code** – the code with which the segment is coded
- ❑ **Created** – the date on which the coded segment was initially created
- ❑ **Author** – user who initially created the coded segment

Depending on the document type, the following columns have different significations:

Text Documents

- ❑ **Start** – paragraph in which the coded segment begins
- ❑ **End** – paragraph in which the coded segment ends
- ❑ **Preview** – the first 64 characters of the encoded text (when exporting the output contains the entire coded segment)



- ☐ **Text segment** – always "yes," (checkmark displayed in box)
- ☐ **Area** – number of characters in the coded segment
- ☐ **Coverage** – number of characters in the coded segment in relation to the number of characters of the text as a whole
- ☐ **Page** – always "1," as no distinction is made in MAXQDA pages

PDF Documents

- ☐ **Start** – horizontal position at which the coded segment begins
- ☐ **End** – horizontal position at which the coded segment ends
- ☐ **Preview** – the first 64 characters of the coded text. For images, <IMAGE> will be displayed (upon exportation the entire coded text and image segment will be displayed)
- ☐ **Text segment** – for text encoding "yes"; for image encoding "no"
- ☐ **Area** – for coded text segment, the number of codes; for a coded image segment, the encoded area as measured in PDF units
- ☐ **Coverage** – for text, the number of coded characters in relation to the total number of characters in the text; for images, the area of the encoded image in relation to the total area of the PDF
- ☐ **Page** – page number of the PDF on which the coded segment appears.

Image Documents

- ☐ **Start** – horizontal position at which the coded segment begins
- ☐ **End** – horizontal position at which the coded segment ends
- ☐ **Preview** – always displayed as <IMAGE> (coded image segment will be displayed upon exportation)
- ☐ **Text segment** – always "no" (no checkmark displayed in box)
- ☐ **Area** – coded area
- ☐ **Coverage** – coded area in relation to the total area of the image
- ☐ **Page** – always "1"

Table Documents

- ☐ **Start** – row in which the coded segment is found
- ☐ **End** – identical to "Start," as coded segments are always inside a row
- ☐ **Preview** – displays the first 64 characters of coded text (when exported, will include the entire coded segment)
- ☐ **Text segment** – always "yes," box is checked



- ☐ **Area** – Number of characters in the coded segment
- ☐ **Coverage** – Number of characters in the coded segment in relation to number of characters in the whole text
- ☐ **Page** – Column in which the coded segment is found

Audio and Video Files


- ☐ **Start** – horizontal position at which the coded segment begins
- ☐ **End** – horizontal position at which the coded segment ends
- ☐ **Preview** – always displayed as <IMAGE> (coded image segment will be displayed upon exportation)
- ☐ **Text segment** – always “no,” box is not checked
- ☐ **Area** – length of coded media clips
- ☐ **Coverage** – length of coded media clips in relation to total length of the file
- ☐ **Page** – always “1”

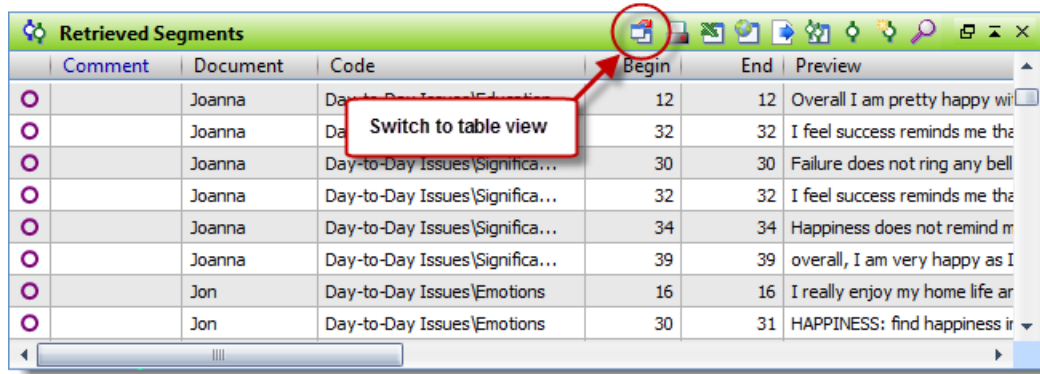
Sort, Hide and Reveal Columns

As with all tables, you can also organize the “Overview of retrieved segments” as you wish:

- ☐ Drag & Drop columns to change their order.
- ☐ Sort a column by clicking on the column heading.
- ☐ Hide or reveal columns by right-clicking on the column heading.

12.10 Table view of the “Retrieved Segments”

The “Retrieved Segments” can be displayed in a table view. Click the **Change to table view**  button at the top of the window. MAXQDA will then display the coded segments in the same manner as the “Overview of retrieved segments” in the preview window. This display is interactive: Click on a row to show the corresponding segment in the “Document Browser.”



The “Retrieved Segments” in table view

12.11 Printing and Exporting “Retrieved Segments”

You may wish to continue to work with the retrieved segments that you have called up. MAXQDA makes it possible for you to print out these segments, copy them to the Windows clipboard, or to export them as a file.

To print out the retrieved segments, you have two options:

- ☐ Select **Print > Retrieved Segments** from the **Project** drop-down menu.
- ☐ Click on the **Print retrieved segments** icon in the “Retrieved Segments” window toolbar.

You will then see the standard Windows option for selecting your printer. The information will be printed in your printer’s standard font. The window that appears will also let you choose to print out only certain pages.

MAXQDA

28.02.2011

Document: New York\Joanna

Weight: 100

Position: 4 - 8

Code: Interview Guide Topics\Work Issues

Career:

◇ On a scale of 1-10, how satisfied are you with your career path?

7

◇ What is your career now or career you are working toward?

My career now is college. I am graduating this weekend from my Community Health Undergraduate program at Hofstra University. I am continuing my undergraduate studies at CW Post in the fall to get a BS in nutrition. Getting my RD is my major career choice. My satisfaction level on my career is only a 7 because I am not looking forward to going back to undergrad college but it is the only way I can achieve a license.

Document: New York\Joanna

Weight: 100

Position: 9 - 12

Code: Interview Guide Topics\Health

Health:

◇ On a scale of 1-10, how satisfied are you with your health?

8

Overall I am pretty happy with my mental, social and physical health. I would like to improve my dedication to working out. I am the type of person who will work out 5 times a week for a month straight and then it slowly turns into less days a week until it is none. I get distracted by school work, my job or just being tired.

Printout of the "Retrieved Segments" window

The layout of your printout cannot be changed from your printer's standard formatting. If you have a color printer, the retrieved segments may be printed out in color. If you want to be able to edit aspects of the formatting, it is recommended that you first export the retrieved segments, open them for edit in a word processor, and then print them out.

To export the retrieved segments, choose **Reports & export > Retrieved Segments** from the **Project** drop-down menu. You can then give the file a name and choose the format that you want the document to be saved in. Alternatively, you can click on the **Export retrieved segments** icon in the "Retrieved Segments" window toolbar. The results are the same.

12.12 Coding "Retrieved Segments"

MAXQDA makes it possible for you to code some or all of your retrieved segments in the "Retrieved Segments" window. In this way, you can search and code quickly within specific segments that have been called up.

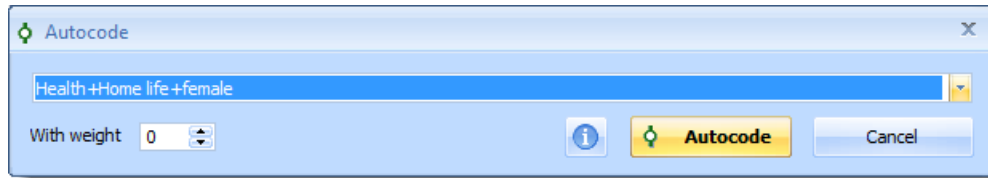
Let's say you did a retrieval of the intersections between the codes "Health" and "Home life" for all the women in your interview sample. You can then choose to code all of these segments with a code called "Health + Home life + women."



To do this, you can ...

- ☐ select **Code retrieved segments** from the **Analysis** drop-down menu,
- ☐ click on the icon in the “Retrieved Segments” window toolbar to **Code retrieved segments**, or
- ☐ click on the icon in the “Retrieved Segments” window toolbar to **Code retrieved segments with a new code**, if the code you wish you code with hasn’t been created yet.

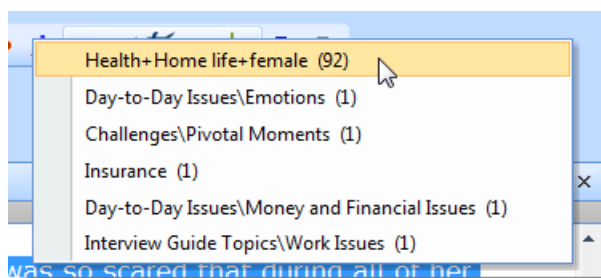
You will then see the following window:



Autocoding the retrieved segments with a new code

You can then choose a code from the quick list. The most recently-used code is listed at the top of the list. To open the quick list, simply click on the **small triangle** on the right. If the code you are looking for is not in the quick list, simply click on that code in the “Code System” and open the quick list again – it will be listed at the top. If you selected that you wanted to code the selection with a new code, you will be given the option to name that code. To complete the operation, click the **Autocode** button.

This action will be added to the list of coding actions in the **Undo coding** menu in the “Code” toolbar. When you open this list, you will see the most recent coding actions at the top with the number of segments coded in each action in parentheses after the code name. If you have coded many segments at one time with the autocoding function, they can all be removed at the same time by clicking once on the appropriate line in this list.

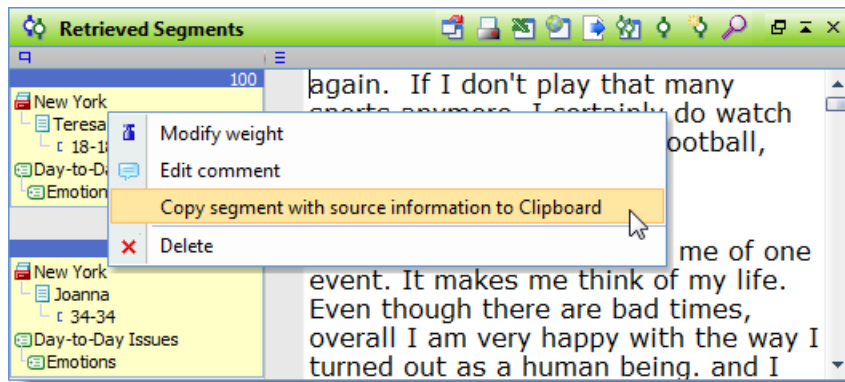


Undoing coding actions

12.13 Copy “Retrieved Segments” with Source Information into the Clipboard

In a research project, citations (e.g. interview passages) are often integrated into the final report. It is important to note the source information of these citations - the document and

paragraph from which they were taken. MAXQDA simplifies this process with the function **Copy segment with source information to Clipboard**. You can access this function by right-clicking on the yellow source information in the “Retrieved segments” window.



Calling up source information from a context menu

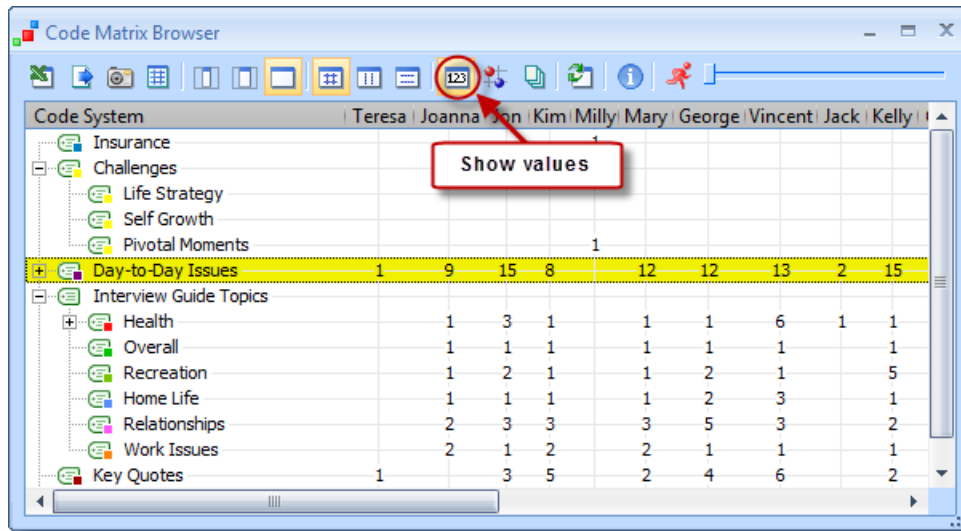
When you call up the function from the context menu, MAXQDA copies the selected segment into the Windows clipboard. Now you can paste the citation into your word processing program by pressing **Ctrl+V**. At the end of the citation, the document name from the “Document System,” as well as the paragraph, will automatically be inserted.

Happiness does not remind me of one event. It makes me think of my life.
Even though there are bad times, overall I am very happy with the way I
turned out as a human being. And I like where my life is headed.
(New York\Joanna: 34)

Citation with source information in word processing program

12.14 Matrix of Code Frequencies

This matrix has “n” rows (n = the number of documents in the project) and “m” columns (m = the number of codes and subcodes). This can be quite a large matrix; if there are 100 documents and 100 codes, the matrix will include 10,000 cells. Normally you would use a statistics program to analyze this amount of data. You can, however, see this information – or sections of it – with the Code Matrix Browser. You can select the documents and codes that should be included in this visualization by activating them. To view the actual counts of how often each code is used in each document, you need to click the **Show values** button in the toolbar.



Code System	Teresa	Joanna	Jon	Kim	Milly	Mary	George	Vincent	Jack	Kelly
Insurance										
Challenges										
Life Strategy										
Self Growth										
Pivotal Moments						1				
Day-to-Day Issues	1	9	15	8		12	12	13	2	15
Interview Guide Topics										
Health		1	3	1		1	1	6	1	1
Overall		1	1	1		1	1	1		1
Recreation		1	2	1		1	2	1		5
Home Life		1	1	1		1	2	3		1
Relationships		2	3	3		3	5	3		2
Work Issues		2	1	2		2	1	1		1
Key Quotes	1		3	5		2	4	6		2

Code Matrix Browser showing the number of times each code was used in each document

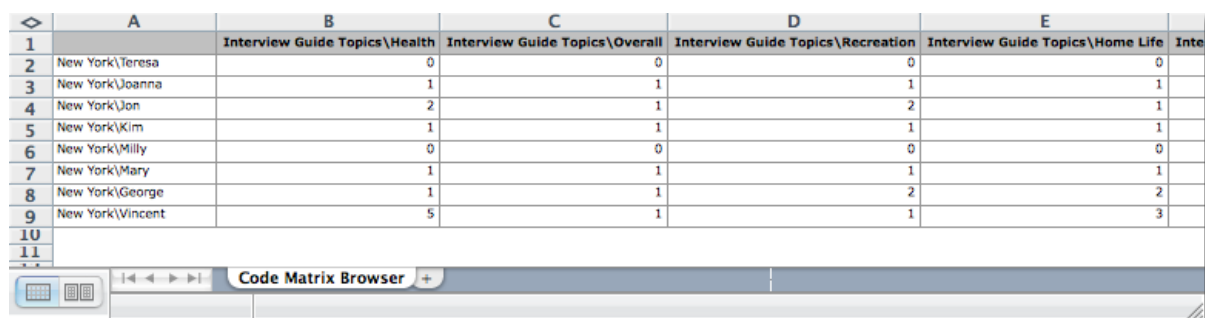
You also have the option of exporting this matrix as an Excel file.

If you decide you want to analyze this table with a statistics program like SPSS, it is necessary that the documents (cases) be listed on the y-axis. To export the table with the documents on the y-axis, go to the **Project** drop-down menu and select **Reports & export > Matrix of code frequencies**. You can then choose to export it in XLS/X or TXT (tab delimited) format.

Tip: If you want to create a matrix with only certain codes and documents, simply activate those codes and documents before calling up the matrix.

In principle, the exported file will look as follows: the first column contains the document names, but documents that have been assigned to document groups will have that document group in the name as well (e.g. "documentgroup\documentname"). The next columns will contain the codes, listed in their full form (e.g. "code1\subcode1"). The backslash separates between either the document group and document name or the code and subcode. The individual cells of the matrix will then contain the number of times each code was used in each document.

The following screenshot shows an example of this matrix viewed in Excel.



	A	B	C	D	E	
1		Interview Guide Topics\Health	Interview Guide Topics\Overall	Interview Guide Topics\Recreation	Interview Guide Topics\Home Life	Inte
2	New York\Teresa	0	0	0	0	
3	New York\Joanna	1	1	1	1	
4	New York\Jon	2	1	2	1	
5	New York\Kim	1	1	1	1	
6	New York\Milly	0	0	0	0	
7	New York\Mary	1	1	1	1	
8	New York\George	1	1	2	2	
9	New York\Vincent	5	1	1	3	
10						
11						

Matrix of code frequencies exported to Excel



Tip: With older versions of SPSS, there are a limited number of characters that can be used for each document or code name. They will automatically be shortened, which could lead to confusion. In this case, it is recommended that you first change the names in the Excel file before importing it to SPSS. You can then create names of eight characters or less that make sense to you.



13 Complex Retrievals



13.1 Logical Combinations of Codes

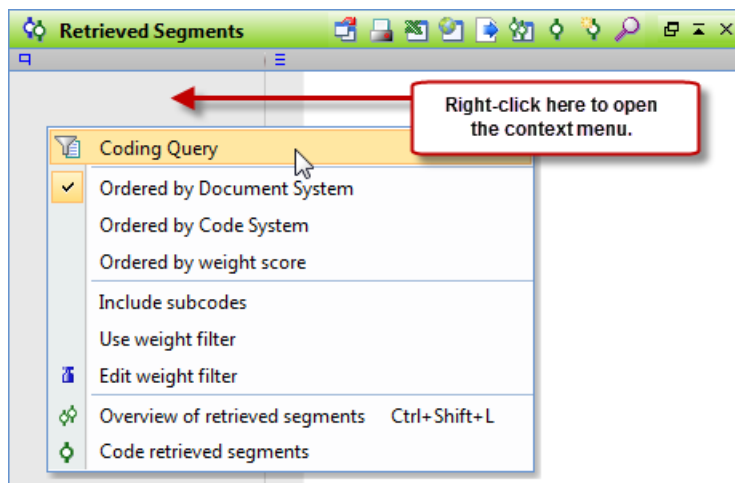
Different than with classic quantitative content analysis, the categorization of data in qualitative analysis is not the end of the document analysis; instead it is simply a step toward further interpretative analysis. The categories create a structure within the documents, but they don't replace them. MAXQDA's analysis functions are tools to help you navigate and further develop this structure.

MAXQDA allows you to combine activated codes in many ways. The OR combination was already described in the section Coding Retrieved Segments. This section will go over the many, more complex combinations that MAXQDA has to offer.

Tip: The following complex retrieval functions assume you are analyzing text in RTF, DOC/X, or TXT format. PDFs cannot be analyzed in the same way, because their paragraph formatting is so different than standard text. Functions that look for codes near to each other, for example, are therefore no longer helpful.

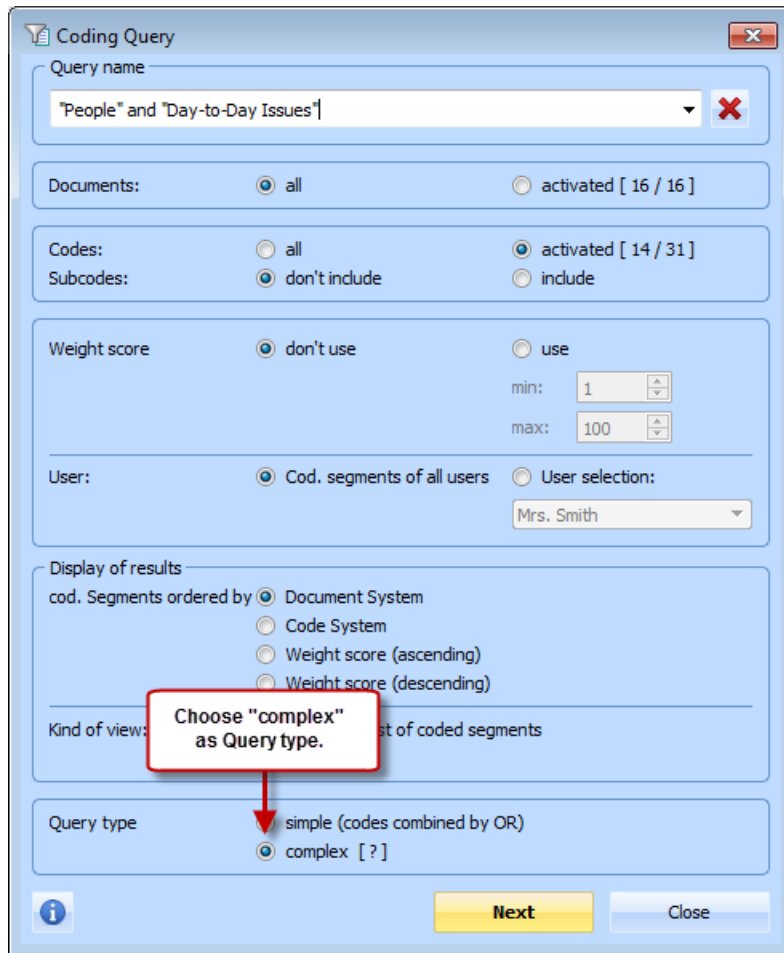
To perform a complex retrieval you can call up the Coding Query:

- ☐ select **Coding Query** from the **Analysis** drop-down menu,
- ☐ click on the icon  in the "MAXQDA standard" toolbar,
- ☐ double-click on the icon  in the status bar at the bottom of the MAXQDA screen, or
- ☐ right-click on the gray area in the "Retrieved Segments" window where the yellow info boxes appear and choose **Coding Query** from the context menu.



Access to retrieval options in the context menu of the "Retrieved Segments" window

The following dialog window will open:

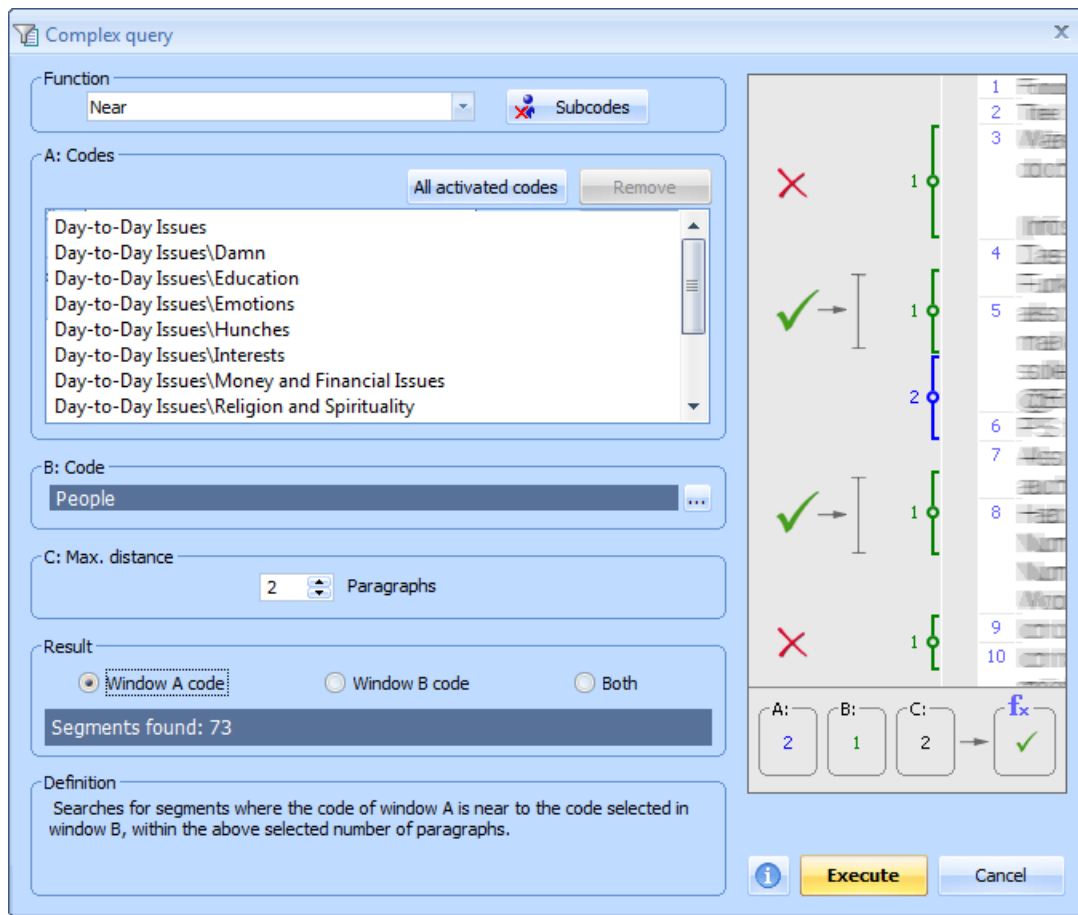


The image shows a 'Coding Query' dialog box with the following sections:

- Query name:** A text field containing '"People" and "Day-to-Day Issues"' with a red 'X' icon to its right.
- Documents:** Two radio buttons: 'all' (selected) and 'activated [16 / 16]'.
- Codes:** Two radio buttons: 'all' and 'activated [14 / 31]' (selected).
- Subcodes:** Two radio buttons: 'don't include' (selected) and 'include'.
- Weight score:** Two radio buttons: 'don't use' (selected) and 'use'. Below 'use' are two spinners: 'min: 1' and 'max: 100'.
- User:** Two radio buttons: 'Cod. segments of all users' (selected) and 'User selection:'. Below 'User selection:' is a dropdown menu showing 'Mrs. Smith'.
- Display of results:** A section titled 'cod. Segments ordered by' with four radio buttons: 'Document System' (selected), 'Code System', 'Weight score (ascending)', and 'Weight score (descending)'.
- Kind of view:** A text field containing 'Choose "complex" as Query type.' with a red arrow pointing down to the 'complex' option in the 'Query type' section.
- Query type:** Two radio buttons: 'simple (codes combined by OR)' and 'complex [?]' (selected).
- Buttons:** At the bottom are three buttons: an information icon 'i', a yellow 'Next' button, and a 'Close' button.

Coding Query window

In this dialog you can specify settings for your retrieval, for example whether to include all documents or only activated documents. Another option would be to only include coded segments from a specific user. At the bottom of the dialog you can select **complex** as Query type, which will open the following dialog window after pressing **Next**.



Complex query window

The dialog window has the following aspects:

- ☐ The **Function** field allows you to choose the retrieval function.
- ☐ Just to the right is the **Subcodes** button that lets you set whether subcodes should be included.
- ☐ Below that, there are three windows, labeled A, B, and C.
- ☐ Window A is important for almost every retrieval option and holds the selection of codes to be included in the selection function. To add codes, activate them in the "Code System" and then click the button to add **All activated codes**.

Tip: You can add codes directly from the "Code System" by using Drag & Drop to move codes to window A.

- ☐ Window B is also for selecting codes, but you can do so from the quick list. Simply click on the symbol to view the list.

Tip: To make a code appear in the quick list, just click on it in the "Code System".

- ☐ Window C allows you to set certain parameters (e.g. the maximum distance between two coded segments).

The “Result” window at the bottom shows how many segments would be pulled up if the retrieval were carried out with the current settings in Windows A, B, and C. Under this window is a description of the retrieval function that is currently selected, and on the right side, there is a visualization of what that function does.

The retrieval begins when you click on the **Execute** button.

The following table gives you an overview of the various functions:

Name	Description
OR-Combination	Lists all coded segments coded with one of the activated codes in the “Code System” found in any of the activated documents in the Document System. This is the standard form of text retrieval.
Intersection (“small picture”)	Lists all intersections of Window A codes. It only shows the section of the segments that have both codes.
Intersection (Set)	Lists all intersections of codes listed in Window A if at least x codes from the list intersect. Only the overlapping section of the segment is displayed.
Overlapping (“big picture”)	Lists instances where codes in Window A overlap. Coded segments that overlap with each other are shown in their entirety, rather than just that section that overlaps.
Only one code	Lists document segments that are coded with only one of the codes in Window A, but none of the other codes in Window A.
Only this code	Lists segments that are coded with the code in Window B, but not with any of the codes in Window A.
If inside	Lists segments where the code in Window A is completely surrounded by the code in Window B. Results can be the segments of the inner code (Window A) or the outer code (Window B).
If outside	Lists segments where the code of Window A is completely outside of the code in Window B. Results are the segments coded with the Window A code.
Followed by	Lists segments where the code of Window A is followed by Window B code within the selected number of paragraphs.
Near	Lists segments where the Window A code is near to the Window B code, within x number of paragraphs.

All of the analysis functions are based on the activated documents, but only the simple query is based on the activated codes. The complex analysis functions are based on the codes you insert in the “Complex query” window.



Tip: All logical functions are only based on those documents that you have activated. The weight filter and subcode inclusion setting are integrated in all 10 functions.

You can see which retrieval function is currently active in the status bar at the bottom of MAXQDA, in this case it is the Near function:



Retrieval function in the status bar

Caution: If there are no segments shown in the “Retrieved Segments” window, it could be because a retrieval function was accidentally activated. You can quickly check for this in the status bar.

13.2 Detailed Information about Complex Retrieval Functions

13.2.1 Intersection

Definition: Lists all intersections of Window A codes. It only shows the section of the segments that have both codes.

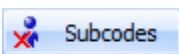
How it works:

Activate documents and/or document groups that you want to include. Activate the codes in the “Code System” that you want and then click on **All activated codes** in the text retrieval dialog window to insert them in Window A.

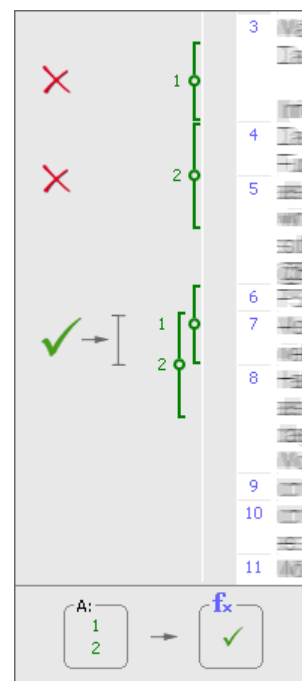
No other settings are necessary. The number of segments that will be pulled up can be seen in the “Result” window. Or, you can simply hit **Execute** to call up the segments in the “Retrieved Segments” window.

Tip: All codes in Window A must be attached to a text segment for it to be called up!

Changing the activations in the “Document System” immediately changes your results.

It is often helpful for this function to include the subcodes, so that all combinations of intersections between each code (and its subcodes) are automatically included. The easiest way to include the subcodes is to click on the  symbol.

Example:



13.2.2 Intersection (Set)

Definition: Searches for segments coded with a minimum of x instances of the codes in Window A.

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be included in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A.

Set the minimum number of codes that must intersect in Window C.

You can see in the "Results" window how many retrieved segments would be found based on intersections.

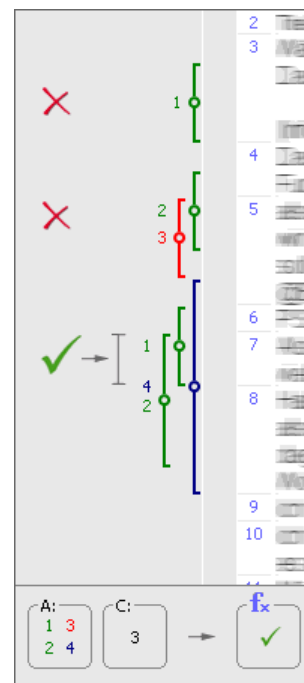
Result:

The intersecting segments are listed in the "Retrieved Segments" window.

Example:

If Codes 1, 2, 3, and 4 are entered in Window A, and you have entered in Window C that at least three intersections are required, the first two examples to the right would not be called up. The first doesn't have any intersections, and the second only has two intersecting codes. The third has the required three intersection codes, though, so it would be listed in the "Retrieved Segments" window.

Only the section of the coded segments that is coded with all three codes is displayed.





13.2.3 Overlapping

Definition: Lists instances where codes in Window A overlap. Coded segments that overlap with each other are shown in their entirety, rather than just that section that overlaps.

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be included in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A.

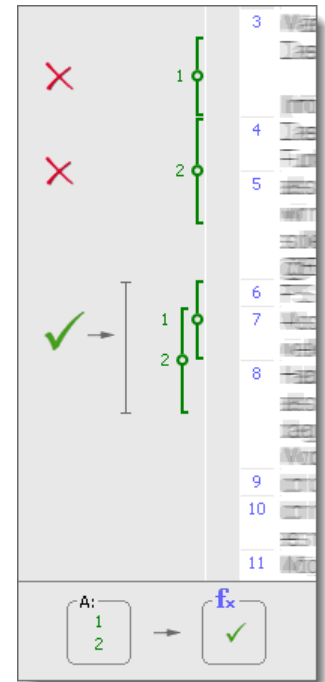
It is not necessary to change any parameters. The number of found overlaps is listed in the "Results" window.

Attention: Segments will only be listed if they are coded with all codes listed in Window A.

The "Overlapping" function works just like the "Intersection" function, except that the results are displayed differently. The results of "Overlapping" include the entirety of each coded segment that overlaps, rather than just showing the section that is coded with both codes.

As with the "Intersection" function, it is often helpful to include subcodes in the retrievals. Then all combinations of codes and subcodes are included.

Example:



13.2.4 Only One Code

Definition: Lists document segments that are coded with only one of the codes in Window A, but none of the other codes in Window A.

Tip: Think carefully before using this function as it could pull up a very large number of segments.

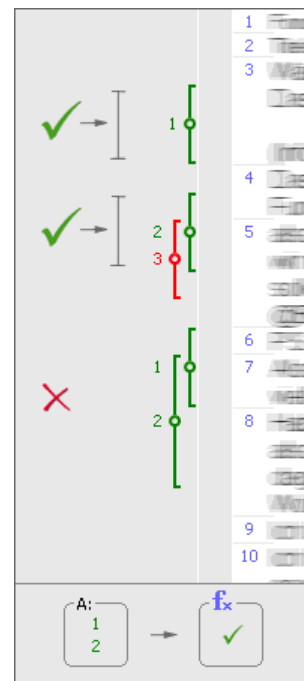
How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be included in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A.

It is not necessary to change any parameters. The number of found overlaps is listed in the "Results" window.

Example:

If codes 1 and 2 are in Window A, the first two examples on the right would be included in the retrieval, because they don't overlap each other. The fact that codes 2 and 3 overlap makes no difference, because code 3 is not in Window A. The third example would not be included in the retrieval because codes 1 and 2 intersect.





13.2.5 Only This Code

Definition: Lists segments that are coded with the code in Window B, but not with any of the codes in Window A.

How it works:

Activate documents or document groups you want included in the retrieval.

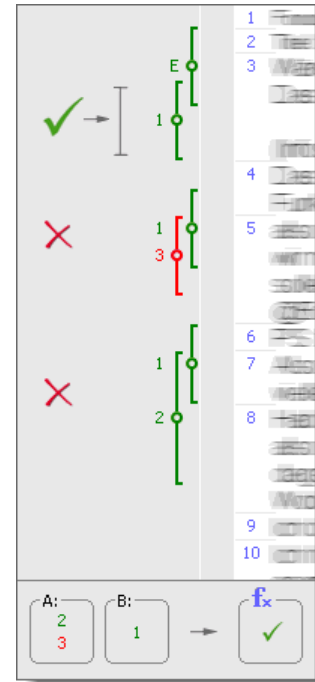
Choose the code from the quick list in Window B that you want to call up. If the code is not there that you want to select, left-click on it in the “Code System” and try again.

Now activate the codes for Window A in the “Code System” and click on the button **All activated codes** to have the activated codes inserted in Window A.

Example:

Code 1 is the selected code (Window B). Code 2 and 3 are the codes in Window A. When either Code 2 or Code 3 intersects with Code 1, Code 1 is not listed. This is the case in the second and third examples on the right. Only the first example shows an instance of Code 1 that isn't intersected by Code 2 or Code 3. It would be listed in the “Retrieved Segments” window.

This function is similar to the “Only one code” function, but it focuses on a specific code (Window B).



13.2.6 If Outside

Definition: Lists segments where the code of Window A is completely outside of the code in Window B. Results are the segments coded with the Window A code.

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be inserted in Window A in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A.

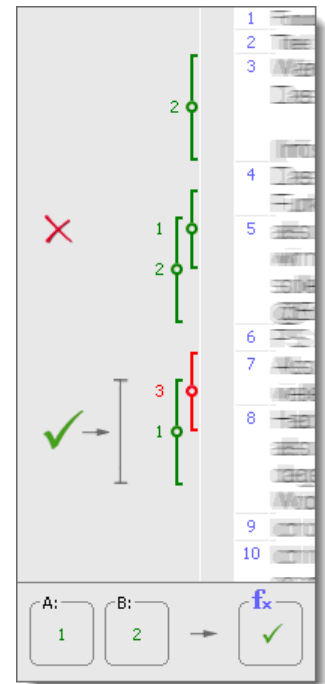
Pick the codes for Window B from the quick list. If they are not there, left-click on them in the "Code System" and try again.

The number of results that will be shown in the "Retrieved Segments" window is listed in the "Results" window. It can also be found in the status bar at the bottom of the MAXQDA screen.

Example:

This function would be helpful if you were looking for text segments in which people talk about what they consider possible, but don't want to include those instances that are in the context of these peoples' wishes.

Code 1 is in Window A, and Code 2 is in Window B. This means you are looking for instances of Code 1 that are completely outside of Code 2. In the example on the right, only the third example would be called up. In the first example, Code 1 isn't even there, and in the second, Code 1 is not completely outside of Code 2.





13.2.7 If Inside

Definition: Lists segments where the code in Window A is completely surrounded by the code in Window B. Results can be the segments of the inner code (Window A) or the outer code (Window B).

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be inserted in Window A in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A.

Pick the codes for Window B from the quick list. If they are not there, left-click on them in the "Code System" and try again.

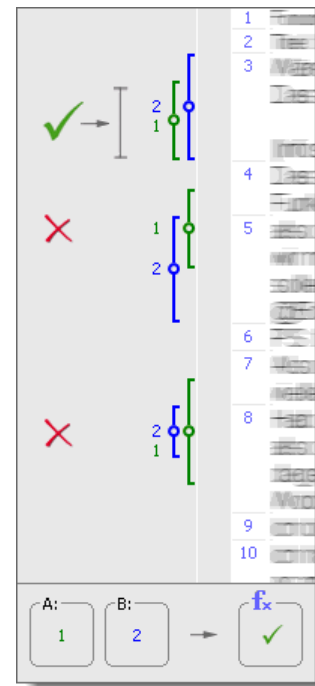
You can then set what you want to view as the result of this function; you can choose to call up the segments coded with the code in Window A, those coded with the code in Window B, or both.

The number of results that will be shown in the "Retrieved Segments" window is listed in the "Results" window. It can also be found in the status bar at the bottom of the MAXQDA screen.

Example:

Let's say you are interested in the things people said about criteria for success, but only in the context of what they consider feasible. You could use this function, putting the "criteria for success" code in Window A and the "considered feasible" code in Window B.

In the examples on the right, only the first shows a case where Code 1 (Window A) is found completely inside Code 2 (Window B). That is not the case in the second or the third examples.



13.2.8 Followed By

Definition: Lists segments where the code of Window A is followed by Window B code within the selected number of paragraphs.

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be inserted in Window A in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A. These are the codes that will be looked for.

Pick the codes for Window B from the quick list. If they are not there, left-click on them in the "Code System" and try again. These are the codes that must follow the Window A code(s) within a certain number of paragraphs.

In Window C, you can insert the maximum number of paragraphs to look for the Window B code(s) after finding a Window A code.

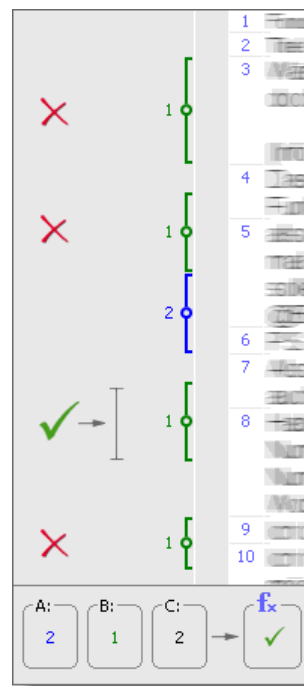
Finally, you can choose what you want to view as the results in the "Retrieved Segments" window.

The number of results is listed in the status bar at the bottom of the MAXQDA window.

Example:

In the example on the right, we are looking for Code 1 (Window B) following Code 2 (Window A) within two paragraphs.

Code 1 appears four times in the example, but only the third instance would be included in the results, because it follows an instance of Code 2 within two paragraphs.





13.2.9 Near

Definition: Lists segments where the Window A code is near to the Window B code, within x number of paragraphs.

How it works:

Activate documents or document groups you want included in the retrieval. Activate the codes to be inserted in Window A in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A. These are the codes that will be looked for.

Pick the codes for Window B from the quick list. If they are not there, left-click on them in the "Code System" and try again. These are the codes that must be near the Window A code(s) within a certain number of paragraphs.

In Window C, you can insert the maximum number of paragraphs away the Window A code can be from the Window B code.

Finally, you can choose what you want to view as the results in the "Retrieved Segments" window.

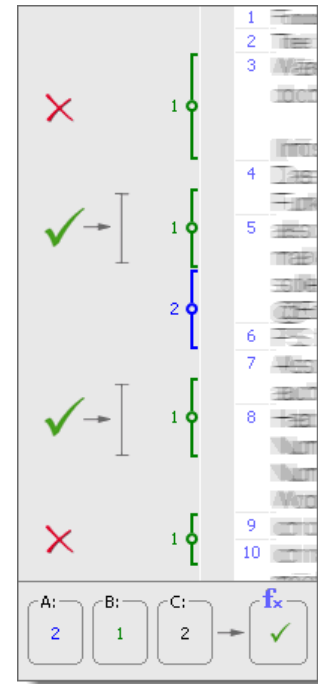
The number of results is listed in the status bar at the bottom of the MAXQDA window.

Example:

We are looking for places where Code 2 (Window A) and Code 1 (Window B) are found within two paragraphs of each other (Window C).

Code 1 is found four times in the screenshot, but only the second and third instances are within two paragraphs of Code 2.

We chose to view the Window B code in the Retrieved Segments, but we could have theoretically chosen to list the Window A code or even both of them.

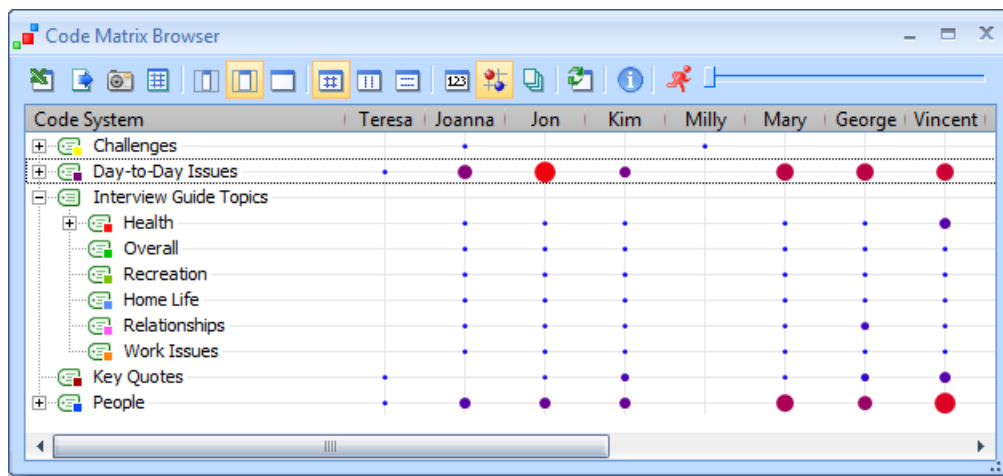


14 Visual Tools

14.1 Code Matrix Browser

The Code Matrix Browser (CMB) offers you a new way of visualizing which codes have been assigned to which documents. The matrix provides an overview of how many document segments from each document have been assigned a specific code, and this for each existing code.

The Code Matrix Browser looks like this:



The Code Matrix Browser

The Code Matrix Browser can be opened in the following ways:

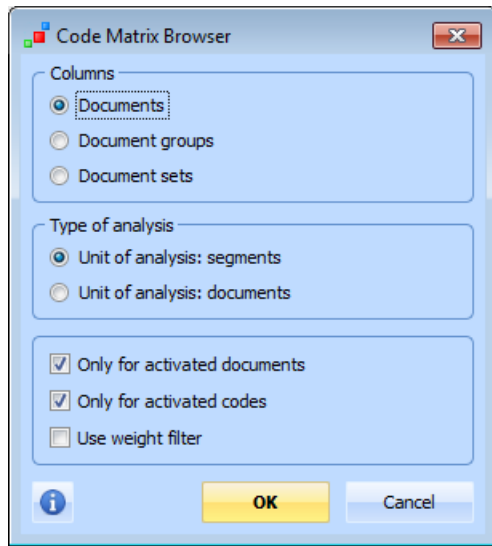
- ☐ Selecting **Code Matrix Browser** from the **Visual tools** drop-down menu,
- ☐ using the keyboard shortcut **Ctrl+B**, or
- ☐ clicking on the **CMB symbol** in the “Visual tools” toolbar.



CMB symbol in the “Visual tools” toolbar

Code Matrix Browser options

After opening the Code Matrix Browser an options window will appear, which allows you to change display options. Often, only the activated documents might be of interest, for example.



Code Matrix Browser options dialog

First you have to decide whether the results should be grouped or not:

Documents – No grouping, every document has a column.

Document groups – The columns are made up of document groups. The coded segments of the documents in each group will be summed up.

Document sets – The columns are made up of document sets. The coded segments of the documents in each document set will be summed up.

Under Type of analysis you can decide how MAXQDA should treat the coded segments:

Unit of analysis: segments – The Code Matrix Browser counts the coded segments in the documents, document groups or document sets.

Unit of analysis: documents – The Code Matrix Browser only shows whether a code was used in a document, document group or document set – it does not matter how often it was used.

Further options allow you to change the data that will be used:

Only for activated documents – Only the activated documents will be displayed. (If there are no activated documents in a document group or document set, the CMB will be empty.)

Only for activated codes – Only the activated codes will be displayed as rows.

Use weight filter – Only coded segments with a weight within the limits of the weight filter will be used.

Tip: The settings can be changed later on in the Code Matrix Browser toolbar.

Code Matrix Browser Toolbar

The first thing you will see at the top of the Code Matrix Browser window is the toolbar, which gives you access to the following functions:



Opens the CMB matrix in Excel.



Opens a window to let you choose to export and save the CMB matrix with the values (showing values rather than circles/squares) in XLS/X or TXT (tab delimited) format.



Allows you to save a snapshot of the CMB as it currently appears in the window.



Opens the Quote Matrix in Excel, showing the segments represented in the CMB.



Shows small column headers without document names.



Shows short document names in column headers.



Shows full document names in column headers.



Calculates symbol size based on all coded segments.



Calculates symbol size based on coded segments in column.



Calculates symbol size based on coded segments in row.



Switches matrix view between symbols and values.



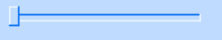
Switches between circle and square visualizations.



Switches from counting the number of coded segments in each document to simply showing whether there is at least one coded segment (whether or not a each code was used at all in the document).



Refreshes the visualizations if you've changed activations of codes or documents.

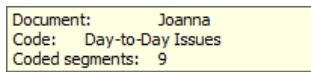
Just to the right of the toolbar, you will find a sliding switch . If documents you have chosen do not fit into the CMB window, you may scroll through the diagram. Unlike in some other MAXQDA tables, the sequence of the columns cannot be modified within the CMB.

What is actually shown in the Code Matrix Browser?

The size and color of the clusters in the matrix show how many document segments in each document have been assigned each particular code and subcode. The larger the cluster, the greater the number of segments that were assigned this code or category in this document.



When you move the mouse cursor over a cluster, a screen tip appears:






Tooltip in the Code Matrix Browser

Tip: The sequence of documents is fixed and will be determined by the sequence of the documents in the “Document System.” Thus, if you want a diagram with a particular sequence of documents, you have to change their sequence in MAXQDA’s “Document System,” which can be done easily via drag and drop.

The name of the document, the code or subcode, and the number of coded segments assigned to the code are shown in the box.

The document names in the column headers can be displayed in three ways:

1.  without document names,
2.  with short document names, or
3.  with full document names.

The number of documents that can be displayed as columns in the matrix depends on this setting. In most cases, it is sufficient to use short document names, showing only the first few letters, which nevertheless is enough for you to recognize it. If in doubt about a document, you can take a look at the screen tip, where the full document name is displayed. If necessary, the width of the columns can be adjusted by clicking on a dragging the lines between column headers.


The codes are displayed in the CMB in the same way as in the “Code System,” in a tree structure similar to that of Windows Explorer. Subcodes can be collapsed in the usual way, by clicking the – symbol.

Tip: When the subcodes are collapsed, the number of coded segments is aggregated on the parent code level. If a parent code (that hasn’t been used in the document) has three subcodes with 10 coded segments each, when you collapse the subcodes, the parent code will show 30 coded segments.

Jumping from the Symbol to the Coded Segment

The document segments that have been assigned a particular code can be called up immediately by double-clicking on the symbol. The relevant document is then activated and the coded segments appear in the “Retrieved Segments” window. It is possible to keep the CMB open, allowing one to easily view the contents of different symbols.

Exporting the CMB as an Image File

The  button in the toolbar lets you take a snapshot of the Code Matrix Browser as it is currently seen in the window. You can save the snapshot as a BMP file for easy import in a word processor or Powerpoint slide.

14.2 Code Relations Browser: Visualizing Overlapping Codes

A tool similar to the CMB is the Code Relations Browser (CRB). The CRB is a visualization of the relationships between codes. A table shows how many document segments any two codes are attached to. The representation is similar to the Code Matrix Browser, but in this case, the little squares/circles stand for the number of co-occurrences of codes.

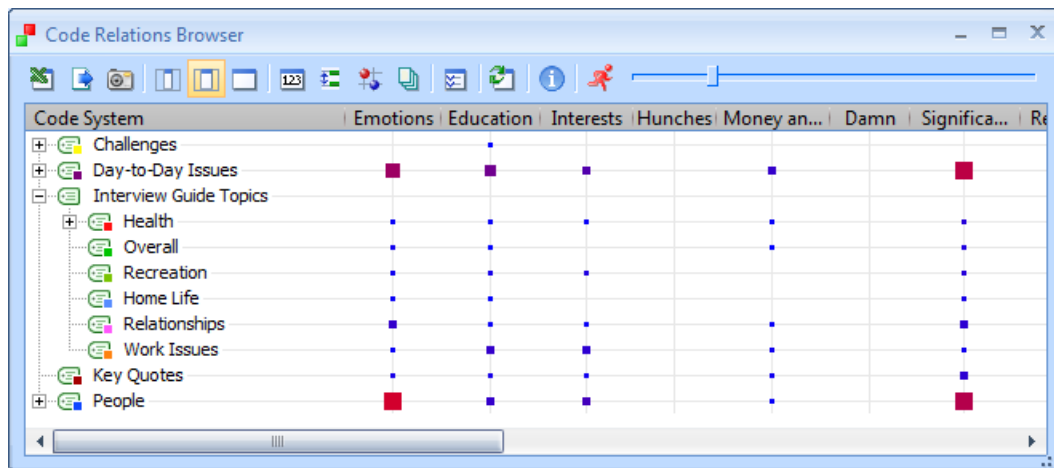
You can open the CRB in different ways:

- ☐ By selecting **Code Relations Browser** from the **Visual tools** drop-down menu,
- ☐ with the keyboard shortcut **Ctrl+O**, or
- ☐ by clicking on the **CRB symbol** in the “Visual tools” toolbar.



Symbol in the “Visual tools” toolbar for opening the CRB

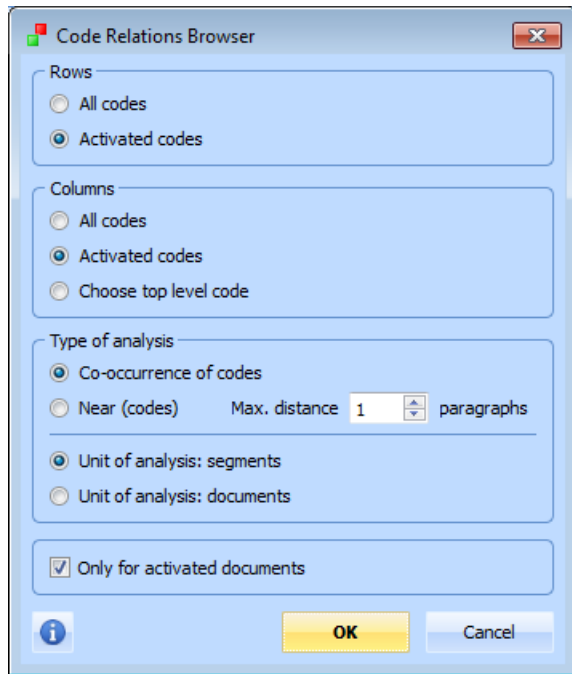
The Code Relations Browser looks like this:



An example of the Code Relations Browser visualization

Code Relations Browser options

After opening the Code Relations Browser an options window will appear, which allows you to change display options. Often, only the activated documents might be of interest, for example.



Code Relations Browser options dialog

First you have to decide which codes will be shown as rows:

All codes – All codes will be shown, the order being the same as it is in the “Code System”

Activated codes – Only the activated codes will be shown as rows.

A similar decision has to be made for the columns in the Code Relations Browser, with the added option of **Choose top level code**. Selecting this option will open another dialog window after pressing **OK**, allowing you to select as many top level codes as you want. The selected top level codes and their subcodes will be shown as columns in the Code Relations Browser.

Under Type of analysis you can decide which relations MAXQDA will show, as well as how often a code was used in a document:

Co-occurrence of codes – Only “real” overlaps of codes will be used, which means that a segment has to be coded with both codes and the codes need to overlap.

Near (codes) – Alternatively the Code Relations Browser will show codes that were used near each other, with a maximal distance of X paragraphs.

Note: If you search with function „Near (codes)” and chose distance „0” you may find more hits than searching for Co-occurrence of codes. The function „Near (codes)” only evaluates if two codes are assigned somewhere in the same paragraph – not at the same segment.

Unit of analysis: segments – The Code Relations Browser counts the coded segments that overlap or are near each other.

Unit of analysis: documents – The Code Relations Browser only shows whether codes overlap or are near each other – it does not matter how often this happens.

The option **Only for activated documents** will make the Code Relations Browser only look for relations in the activated documents.

Tip: The settings can be changed later on in the Code Relations Browser toolbar.

Code Relations Browser toolbar

At the top of the screen, you will find the toolbar with the following functions:



Opens the CRB matrix in Excel.



Opens a window to let you choose to export and save the CRB matrix with the values (showing values rather than circles/squares) in XLS/X or TXT (tab delimited) format.



Allows you to save a snapshot of the CMB as it currently appears in the window.



Shows small column headers without code names.



Shows short code names in column headers.



Shows full code names in column headers.



Switches from the “Overlapping” function to the “Near” function.



Switches between circle and square visualizations.



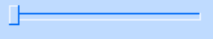
Allows you to change settings for the “Near” function.



Switches from counting the number of overlaps to simply showing how many documents have at least one instance of the two codes overlapping.



Refreshes the visualizations if you’ve changed activations of codes or documents.

To the right of the toolbar, you will find a scroll bar , which lets you scroll through all of your y-axis codes without losing sight of the y-axis codes. The order of the codes is based on the order in the “Code System.” If you want to change the order in the CRB, you must first change the code order in the “Code System” and refresh the visualization.

What is actually shown in the Code Relations Browser?

Each symbol in the matrix represents the number of intersections of the two codes. The bigger the symbol, the larger the number of intersections. If you choose to switch to the **Near** function, the symbols represent the number of times two codes exist near to each other (within a certain number of paragraphs, defined in your settings).




If you click on the **Document based** icon in the toolbar, the symbols represent the number of documents that have at least one instance of an intersection between the two codes. It no longer matters how many times these intersections occur in each document.

Tip: The order of codes in the Code Relations Browser will be identical to the order in the “Code System.” If you want to change the order in the graphic, you have to change the order in the “Code System” first.

Jumping from the Symbol to the Coded Segment

You can call up the document segments with overlapping codes by double-clicking on the symbol representing them. The “Overlapping” retrieval function will automatically be activated, bringing up the segments in the “Retrieved Segments” window. The CRB can remain open, so you can quickly go from one set of overlapping codes to another.





















Exporting the CRB as an Image File

The  button allows you to take a snapshot of the current CRB window and save it as a BMP file, which you can then insert easily into a word processing file or Powerpoint slide.

14.3 Document Comparison Chart: A Visual Comparison of Documents

This visualization works for a number of documents at one time and offers a sort of mix between the Document Portrait and the Codeline. Simply choose the documents and codes that you wish to include in the visualization by activating them before calling up the function.

The Document Comparison Chart shows the documents on the y-axis and the paragraph numbers on the x-axis, making it possible to compare the flow of codes in each document. The cells show the codes that exist in each paragraph of each document with a bar assigned the same color as the code it represents. Each code that is present in the paragraph is represented by a colored section of the bar. If a code is used more than once in a paragraph, it is still only visualized once. To give you an idea how this works, see the screenshot below. In this example, you can see 10 paragraphs for three different documents. You can see that there were no coded segments in any of the documents in the first paragraph. In “Doc 1,” the first coded segments are in paragraph two, where two blue and one red code are visualized.


	1	2	3	4	5	6	7	8	9	10
Doc 1		  	 					 		
Doc 2							 			
Doc 3										

The principle behind the Document Comparison Chart

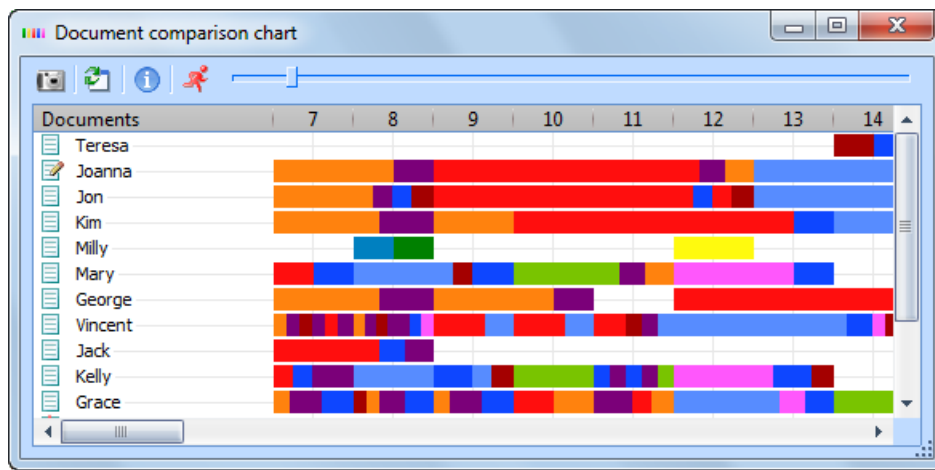
If several codes with different colors appear in the same paragraph, the space available will be shared between the codes. Generally, the space is fixed to 50 pixels. These pixels will be allocated according to the size of the coded segments. If exactly the same segment is coded with a green and a red code, then 25 pixels will be colored red and 25 green.

Like in Document Portrait, codes and colors must correspond in a meaningful way. Otherwise the diagram will have no meaning for you.

You can call up the Document Comparison Chart:

- ☐ by selecting **Document Comparison Chart** from the **Visual tools** drop-down menu, or
- ☐ by clicking on the  symbol in the “Visual tools” toolbar.

The visualization looks like this:




Example of a Document Comparison Chart

The Document Comparison Chart is particularly useful for the analysis of structured documents. In this case, all the documents have the same number of paragraphs and allow for a direct comparison. You are more or less looking at a Document Portrait for each selected document at the same time.

Active Symbols

As in all visualizations, the symbols representing the coded segments are active, meaning you can jump directly to the coded segments in the original document in the “Document Browser” by clicking on the symbol.

Exporting the Document Comparison Chart as an Image File

The  takes a snapshot of the visualization as it is currently seen on your screen, so you can then save it as a BMP file and import it into a word processing file or Powerpoint slide.



14.4 Document Portrait: Visualizing a Document

This visualization is for a specific document, making it a case-oriented function. The document is shown as a picture of all the coded segments based on the order and colors of the codes.

You can access the Document Portrait ...

- ☐ by selecting **Document Portrait** from the **Visual tools** drop-down menu,
- ☐ by right-clicking on a document and selecting **Document Portrait** in the context menu that appears, or
- ☐ by clicking on the appropriate **symbol** in the **Visual tools** toolbar.



Symbol in the “Visual tools” toolbar for calling up the Document Portrait

The results of this function are only meaningful if you have made use of the opportunity to assign colors to codes. The visualization of a document can only be fruitful if this association of colors makes sense to you. Here are a few examples:

- ☐ Imagine a psychologist has coded an in-depth interview in a way that categories related to aggression have red colors and categories for quiet and friendly behavior have green colors. Now a Document Portrait would show with you in a single glance how often the interview shows aggressive behavior and when during the interview this happened.
- ☐ In biographical research, the particular representations can be chosen for critical life events, thus making it easy to get an idea of the life course of a person and the concentration of critical events.
- ☐ For thematic analysis, it may be useful to associate different colors to different topics. Now, you can easily see which topics dominate the discussion and which topics are closely related.

What Does a Document Portrait Display?

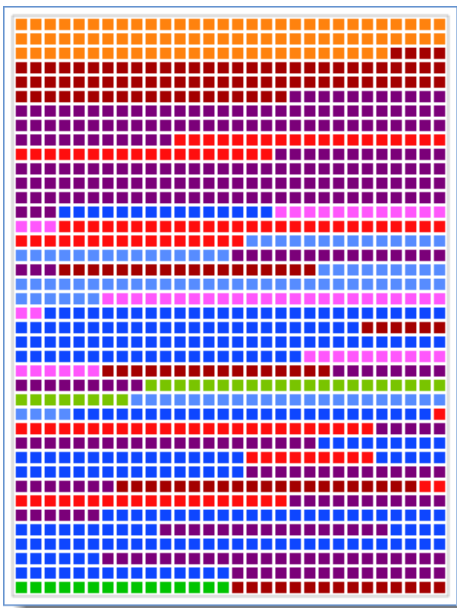
A Document Portrait shows the sequence of codes for a selected document. To better understand what happens, it is useful to take a look at the “Overview of coded segments” for a selected document. All coded segments are listed in this overview. The first column displays the color associated with the code. This is the material that is used to “paint” document portrait. Only those colors displayed in the first column of the overview table will appear in the visualization. In the overview table, all segments are equal regardless of their size. The Document Portrait, however, takes the size of the segments into account and “weights” the color according to the segment’s size.

The color attributes of the codes associated with the document are displayed in a matrix with 1,200 little squares (arranged in 30 rows, each one with 40 squares). The representation starts with the first square on the left in the first line, and ends with the last square on

the right of the last line. The picture is set up in the same way as a television screen, where an electronic stripe goes along the screen from left to right. All 1,200 squares are divided up according to the share of the coded segments. If a document only had segment coded with a blue code, then the Document Portrait would be totally blue. If this segment were coded with two codes, red and blue, the Document Portrait would consist of 600 blue and 600 red squares. If two segments were coded (again with red and blue codes) and the first segment were twice as extensive as the second, the picture would start with 800 hundred red squares followed by 400 blue squares.

Thus, Document Portrait displays the structure of documents in terms of codes as a colorful picture. This helps to immediately identify the basic tone of a document, for instance, if emotions have been coded with meaningful colors (aggressive= red, tolerant= green, and so on).

Try out the Document Portrait – right-click on a document of your choice in the “Document System” and choose **Document Portrait**. Of course, meaningful results can only be obtained if you have assigned colors that make sense for your codes.



Example of a Document Portrait

Document Portrait Visualization Options



Visualize entire text document or coded text

This button lets you toggle back and forth between the two visualization options. If you choose to visualize the entire document, the visualization will include white squares for sections of the document that have no code assigned to them. The other options only visualizes segments of the document that were coded.



Mixed colors for overlapping codes (yes/no)



This setting decides how segments should be visualized that are coded with more than one code. If the above option is off, each of the colors of the codes used to code the same segment will be listed sequentially, one after the other, similar to how it works in the “Overview of coded segments.” If the option is turned on, the colors of each assigned code are mixed together.




Display nodes as circles (on/off)

This button lets you switch the symbols in the visualization back and forth between squares and circles.

Active Code Symbols

The square or circle symbols in the Document Portrait are also directly connected to the original data, which means you can double-click on any symbol to call up that coded segment in the “Document Browser.” (This is not possible if you have chosen to mix colors for overlaps.)

Exporting the Document Portrait as an Image File

The  button lets you take a snapshot of the Document Portrait, save it as a BMP file, and then insert it into a Word document or Powerpoint slide.

14.5 Codeline: The Sequential Visualization of a Document

The Codeline is a case-based visual function that displays a sequential view of a document’s coded segments. The picture is quite similar to that of a score of a piece of music. The x-axis displays the paragraphs of the document, starting with §1 and ending with the last § of the particular document. The y-axis displays the codes. The cells of the Codeline matrix are filled with a colored symbol, if the code has been assigned to the paragraph.

The basic idea behind the visualization can be seen below. There are 12 paragraphs and three codes shown. You can see that nothing was coded in the first paragraph of any of the documents. In the second, eleventh, and twelfth paragraph, Code1 is used. In paragraph five, both Code2 and Code3 were used. This shows you already how you can use this visualization. It gives you an overview, so you can quickly identify which codes appeared and overlapped in various phases of the document.

	Paragraph											
	1	2	3	4	5	6	7	8	9	10	11	12
Code1		■									■	■
Code2					■	■	■	■			■	
Code3				■	■					■		■

Schematic representation of the Codeline

The Codeline is called up ...

- ☐ by selecting **Codeline** from the **Visual tools** drop-down menu,
- ☐ by right-clicking on a document and choosing **Codeline** from the context menu that appears, or
- ☐ by clicking on the appropriate **symbol** in the “Visual tools” toolbar.

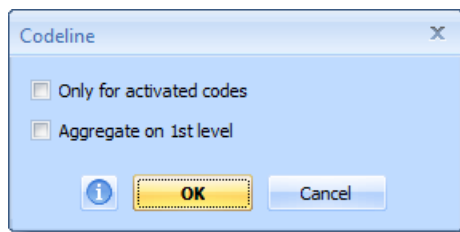


Calling up the Codeline visualization using the symbol in the “Visual tools” toolbar

Codeline Options

When you call up the Codeline, you have two options:

1. **Only for activated codes** – this limits the codes to be included in the visualization to those that you have already activated in the “Code System.”
2. **Aggregate on the 1st level** – this option means that only top-level/parent codes will be visualized. The subcodes of each parent code will be handled as if they were instances of the parent code.



Options for the Codeline visualization

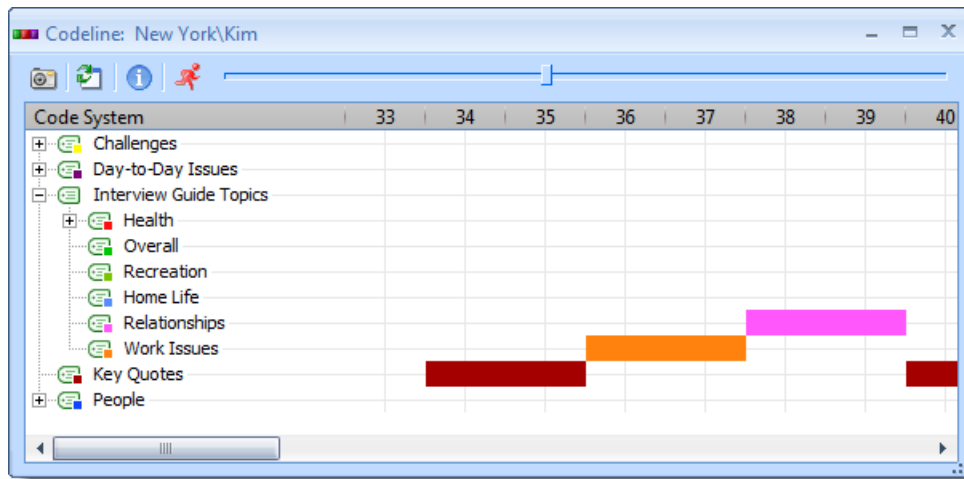
Codeline Display

Unlike the Document Portrait, the Codeline tool can be used even if you have not associated meaningful colors to your codes. The Codeline graphics display the color, but if you have not selected colors, only green symbols will be displayed. The function of Codeline is to show where in a document the different codes have been applied, and this diagram also makes sense and can be interpreted without color differentiation.

What can the Codeline be used for?

- ☐ Codeline gives a good overview of the coding and can therefore be used universally.
- ☐ The diagram may be of use for exploration – just follow a particular code, see when it appears and which other codes appear near it.
- ☐ The opportunity to display only selected codes enables comparing two or more codes in the course of an interview.

- When analyzing focus groups, you can see at a glance which speakers react to each other and what the topics are in relation to the speakers.



Example of a Codeline visualization


The Codeline creates a table with the codes on the y-axis and the paragraph numbers on the x-axis. The coded segments are shown in paragraph sequence, starting with the first. This means that the visualization has as many columns as paragraphs. If the code is used in a paragraph, the code's color will be shown in the bar in the appropriate column. If a coded segment is more than one paragraph, the bar continues from one to the next.

You can scroll through the paragraphs while keeping the code names visible by using the scroll bar at the top of the window.

Active Code Symbols

The display of the coded segments is interactive. If you hover the mouse over a symbol, a tooltip appears with the code or subcode name and the paragraph number. Double-clicking on the **symbol** opens that document in the "Document Browser" at the appropriate paragraph(s). The coded segment is also highlighted automatically.

Exporting Codeline as an Image File

The  button takes a snapshot of the Codeline as it currently appears in the window and lets you save it as an BMP file, which you can then later insert into a Word file or Powerpoint slide.

14.6 Tag Clouds

Tag clouds offer you a simple way to visualize the most frequently used words in a document or group of documents. The size of the font is dictated by the number of times it is

found in the selected document(s). MAXQDA puts the words in alphabetical order, starting in the top left.



Tag cloud

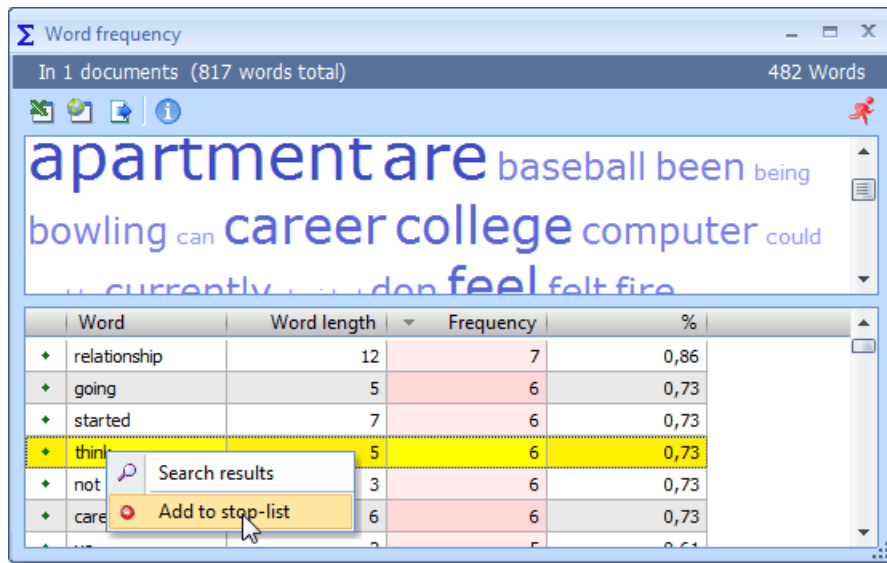
The tag cloud function can be called up for a single document, a document group, a document set, or all documents in a project. Simply right-click on the document/group/set in the “Document System” and choose **Tag cloud** from the context menu that appears.

So that you don’t end up with a list of short words that have no meaning for your analysis (e.g. and, or, the, but), you can create a stop list, so that such words aren’t included. The easiest way to add words to a stop list is from the “Word frequency list.” This list shows all the most frequently-used words, sorted from most the most frequent to the least frequent. To the left of each word is a green symbol. If you want to add a word to the stop list, just double-click on this green symbol next to it. This word will now no longer show up in the word frequency list or the tag cloud. You can also add several words at the same time to the stop list by holding the Ctrl key, clicking on the words one by one, and then right-clicking on one of them and choosing **Add to stop list** from the context menu that appears.

In the screenshot above, you can see the **Edit stop list** button at the bottom left of the tag cloud window. This button brings up a list in TXT format of all the words that are currently

in the stop list. You can here add or delete words as well, although the double-clicking option described above is considerably easier.

The **Copy** button copies the tag cloud to the Windows clipboard, which makes it easy to then paste it into other programs, like Microsoft Word.




*Word frequency list: double-click on the green symbol next to a word to add it to the stop list, or right-click on the word and choose **Add to stop list** from the context menu.*

15 Statistics and Graphics Functions

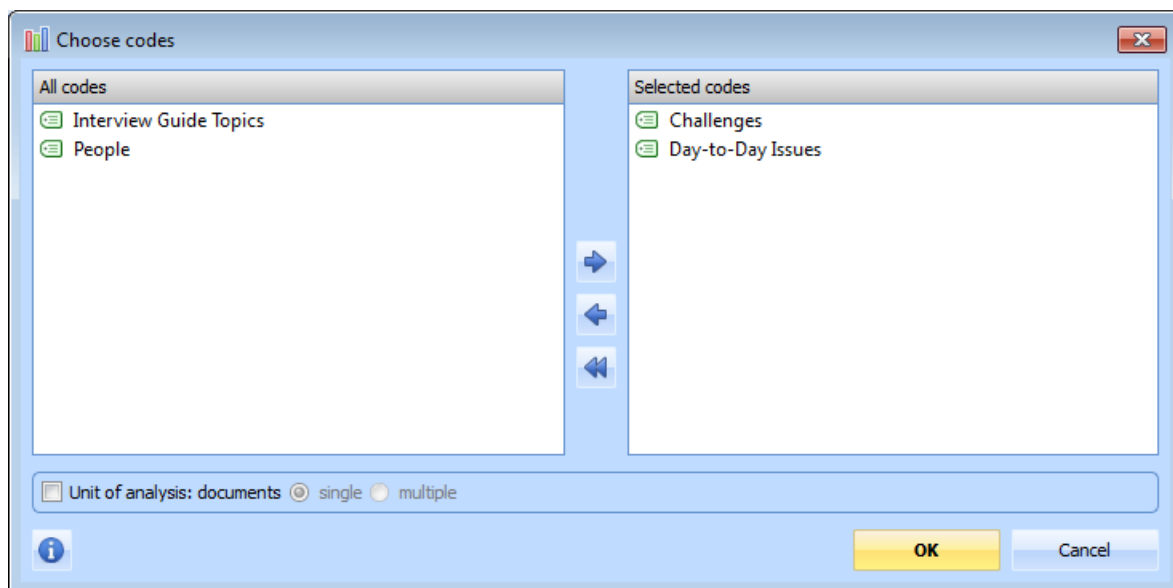
15.1 Frequency Tables and Charts for Subcodes

With the help of the Statistics and Graphics module, MAXQDA can create frequency tables and charts which indicate the frequency of subcodes. These functions can be accessed in the following ways:

- ☐ From the menu **Codes > Statistic of subcodes** or **Mixed methods > Statistic of subcodes**,
- ☐ or with the **Statistic of subcodes**  button in the “MAXQDA standard” toolbar

The split “Choose Codes,” dialog box: on the left side, all existing codes that have subcodes are listed; on the right side selected codes appear. In the middle, arrow buttons allow you to transfer codes from one window to the other. Click on the column header of either list in order to alphabetize content.

Note: To select multiple variables at once, hold down the Shift (⇧) or CTRL-key.



Statistics and Graphics: Choose codes

Select Unit of Analysis for Statistical Evaluation

By default, MAXQDA uses coded segments as the unit of analysis and, as a result, produces statistical evaluation of how many coded segments exist in relation to the respective subcodes.

At the bottom of the screen, you will find an option to use the number of documents as the unit of analysis. The logic for choosing this unit of analysis is, in this case, the same as



with the Code Matrix Browser: MAXQDA takes into account only whether a code is present in a document, and not its frequency.

Depending on how you choose to proceed with the coding, two variants are possible for the evaluation of the unit of analysis *Document*:

Single: In this case, the calculation is performed under the assumption that the subcodes are mutually exclusive, i.e. MAXQDA interprets subcodes essentially as a categorical variables. MAXQDA calculates the number of documents in which the respective subcode has been assigned. Within individual documents, only the most frequently occurring subcode is counted. If two or more subcodes are assigned in equal frequency, a new “undefined” category is created.

Multiple: In this case, the calculation will be performed based on the assumption that multiple subcodes can be assigned within a single document, i.e. that subcodes do not exclude each other. MAXQDA calculates the number of documents in which the respective subcode has been assigned. Within individual documents, all assigned subcodes are counted.

Note: Only direct subcodes of the chosen codes are used to perform the calculations. Subcodes of subcodes are not part of the analysis.

Once you click **OK**, MAXQDA begins the statistical calculation, after which the results will be displayed as frequency tables and diagrams.

The window shows the table view of the first selected variables:

Name	Frequency	% percentage	percentage (valid)
Scarcity of resources	6	42.9	42.9
Egoism	5	35.7	35.7
War	3	21.4	21.4
Total	14	100.0	100.0
Missing	0	0.0	
Total	14	100.0	

Frequency Table

The first column of the table lists the different subcodes of the table; the second column, the absolute frequency; the third column, the corresponding percentages. The fourth column shows the percentages based on valid values, meaning missing values are not taken into account. If no missing values exist in relation to the relevant variables, then the percentages will be identical in the third and fourth columns.

Tip: Click on the column headers of the first two columns in order to define row order. For example, you can sort in descending or ascending order of category frequency.

Table Values

The relevance of table values depends on the code selection option.

Unit of Analysis: Coded Segments (default selection, no selection made): The table will show how often a subcode was assigned, meaning how many coded segments exist for this code.

Unit of Analysis: Document (Single): The table will show the number of documents in which the respective subcode was assigned. The subcodes are considered to be mutually exclusive. Within an individual document, only the subcode which occurs most frequently will be counted.

Unit of Analysis: Document (Multiple): The table will show the number of documents in which the respective subcode was assigned. Within individual documents, all assigned subcodes will be counted.

Example: In this MAXQDA project, five interviews were analyzed with respect to the issue "World Problems." In total, 14 segments in the five documents were coded, and distributed among the three subcodes "Scarcity of resources," "War" and "Egoism."

When "Segments" is selected as the unit of analysis (default), MAXQDA generates a table which shows how often each of the three subcodes occurs in the five interviews. The basis for the calculation of percentages is the total number of segments: In this example, 14:

Name	Frequency	% percentage	percentage (valid)
Scarcity of resources	6	42.9	42.9
Egoism	5	35.7	35.7
War	3	21.4	21.4
Total	14	100.0	100.0
Missing	0	0.0	
Total	14	100.0	

Unit of Analysis: Coded Segments

If "Documents" and "single" had been selected as the unit of analysis, the "Frequency" column would indicate the number of interviews in which the respective world problem was coded most often. As the table below reveals, the subcode "Scarcity of resources" was awarded most often in 2 interviews. Note the category "undefined," which occurs when two or more subcodes are present in equal frequency within a document; in this case, once. In each document at least one world problem was coded, otherwise a missing value would be displayed. The "Total" row indicates the total number of documents analyzed: In this case, five.



Name	Frequency	% percentage	percentage (valid)
Scarcity of resources	2	40.0	40.0
War	1	20.0	20.0
undefined	1	20.0	20.0
Egoism	1	20.0	20.0
Total	5	100.0	100.0
Missing	0	0.0	
Total	5	100.0	

Unit of Analysis: Document (Single)




When “Multiple” is selected, MAXQDA counts the number of documents in which each world problem occurs. The bottom row indicates the number of documents included in the analysis.

Name	Frequency	% percentage	percentage (valid)
Scarcity of resources	4	40.0	40.0
War	3	30.0	30.0
Egoism	3	30.0	30.0
Total	10	100.0	100.0
Missing	0	0.0	
Total	10	100.0	


Unit of Analysis: Document (Multiple)

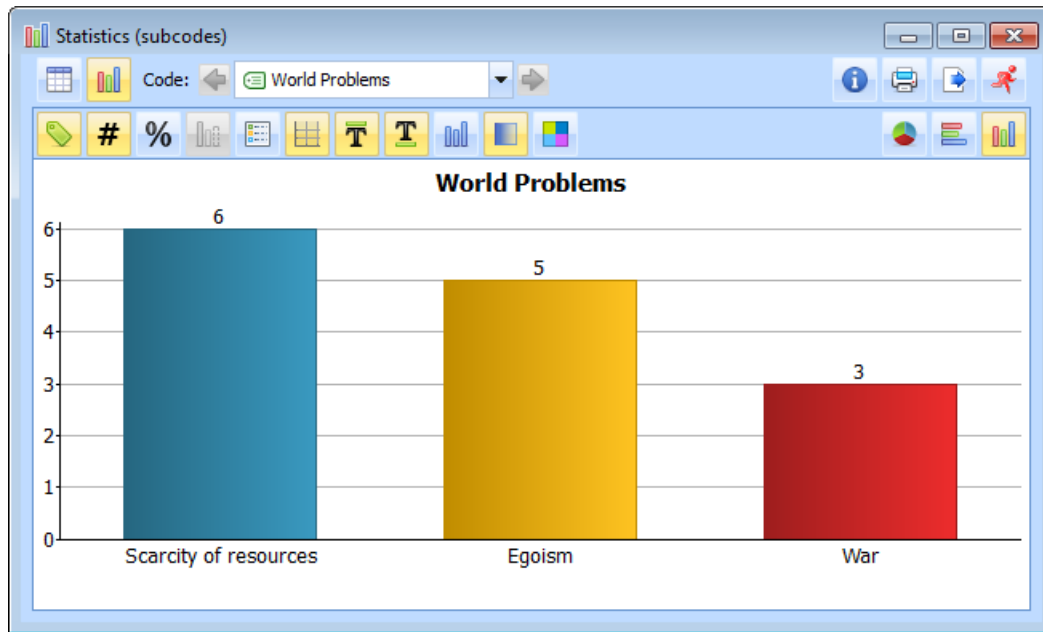
Toolbars

You will see a toolbar at the top of the results window. Here you can:

- ☐ call up charts by clicking the  icon
- ☐ flip forward  or back  between main codes
- ☐ print results, or
- ☐ export results as an Excel file.

Charts

Once you have switched to the Chart view by clicking on the  icon, a bar chart of the selected subcode appears in the place of the table view.



Horizontal bar chart representation for the subcodes of the "World Problems" code

Note: The order of columns, bars and segments is determined by row order in the frequency table.

You will see two toolbars at the top of this window. The upper toolbar is the same as the frequency table, and you can switch at any time to the table view. On the right side of the toolbar you will see three buttons, with which you can choose between pie chart, horizontal and vertical bar chart. The chart can be customized using the options in the lower toolbar.



Display labels – hide or show categorical labels of bar and pie charts on the x-axis.



Display data values – hide or show the data label, meaning frequency of variable values or subcodes.



Display percentages – show relative, rather than absolute frequencies.



Display missing values – hide or show missing values category.



Display legend – hide or show the legend, which is switched "off" by default in bar charts.



Display scale – hide or show the scale axis in bar charts.



Display title – hide or show diagram title.



Display text – hide or show textual description of diagram.



One color – use the same color for all pie or bar chart segments.




Color gradient – add color gradient to pie or bar chart segments



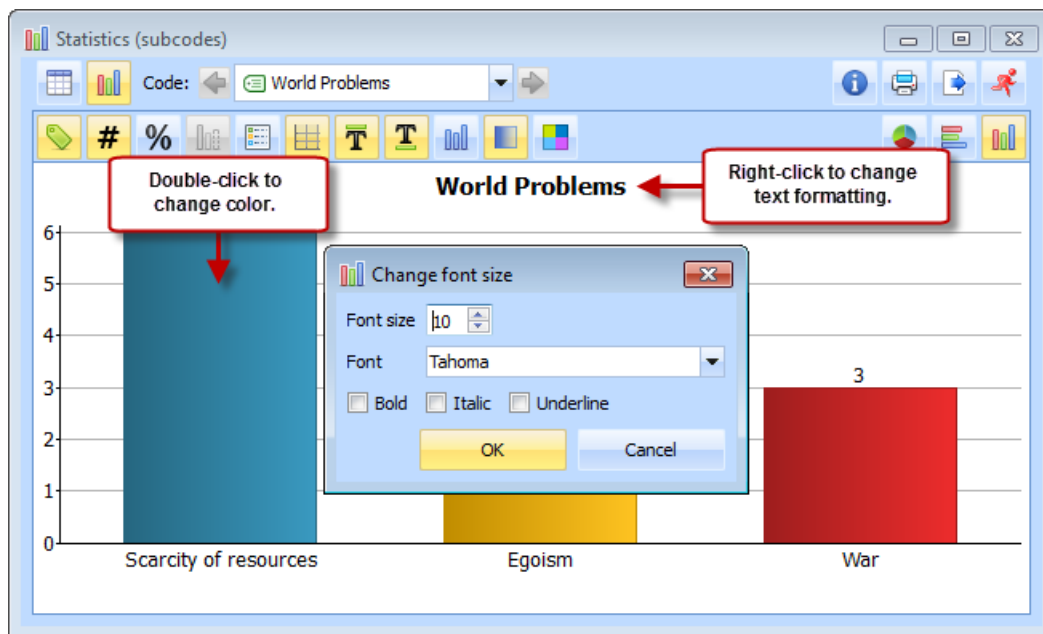
Change color scheme – opens window for color scheme selection.

Customizing Chart Captions, Color and Font Sizes

When creating charts, MAXQDA sets an initial color scheme. To customize your charts, double-click on the selected segment and choose your desired color. Click on the **Change color scheme**  button to select from among three preset color schemes.

Double-click on the title or description to customize content.

Formatting, such as font, font size and font style, can be changed via the dialog window that appears when you right-click on the title, description or another label.



Customize color and font size



Note: When window size is modified, font size will be automatically modified accordingly.

Printing and Exporting Charts

Like frequency tables, charts can be printed and exported. Charts will be exported in PNG format, or as vector graphics in SVG format.

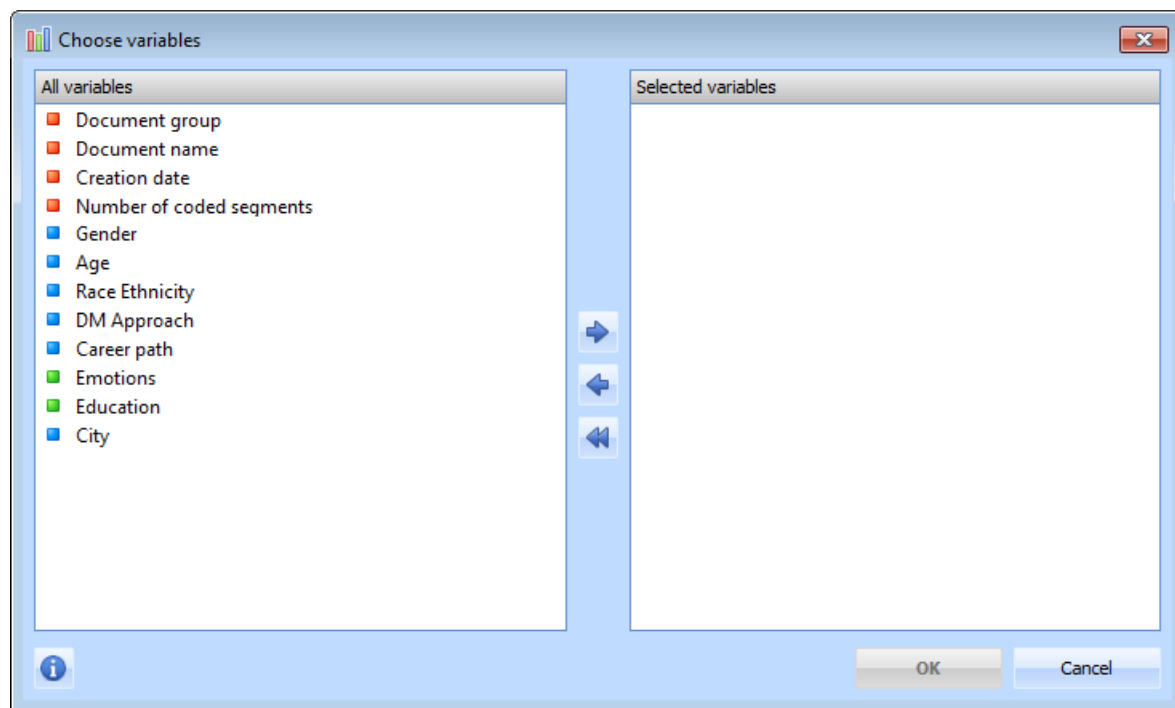
15.2 Frequency Tables and Diagrams for Variables

With the help of the Statistics and Graphics module, MAXQDA can create frequency tables and corresponding diagrams for code variables as well as document variables. These functions can be accessed in the following ways:

- ☐ from the menu **Variables > Statistic of document variables** and **Statistic of code variables**,
- ☐ or with the **Statistic of document variables**  button on the "MAXQDA standard" toolbar,
- ☐ or with the **Statistic of document variables**  button in the "List of document variables" and "List of code variables."

The split "Choose variables" window is displayed below: On the left side, all existing document variables are listed; on the right, the selected variables. The arrow buttons in the middle allow you to transfer variables from one window to the other, i.e. for selection for analysis or removal from the selection list.

Note: To select multiple variables at once, hold down the Shift (⇧) or Control key.



Statistics and Graphics: Choose Variables

Note: System variables that are created and managed by MAXQDA are marked in red; codes that have been transformed into variables are marked in green.



Both lists can be alphabetized by clicking on the column headers. When you click **OK** MAXQDA will begin the statistical evaluation and display the results as frequency tables and charts.

The results window displays the results of the first selection of variables in a table. The “Frequency” column shows how many of the analyzed documents contain the variable value in question.

Name	Frequency	% percentage	percentage (valid)
19 or less	6	37.5	54.5
20 - 25	2	12.5	18.2
Over 25	3	18.8	27.3
Total	11	68.8	100.0
Missing	5	31.2	
Total	16	100.0	

Frequency Table

Tip: Click on the column headers of the first two columns in order to modify the order of the table rows. For example, you can sort the frequency of categories in ascending or descending order.


The first column lists the various categories of the table; the second column lists the absolute frequency; and the third lists the corresponding percentages. The fourth column shows percentages based on valid values, meaning missing values are excluded. If there are no missing values among the variables in question, the percentages of the third and fourth columns will be identical.

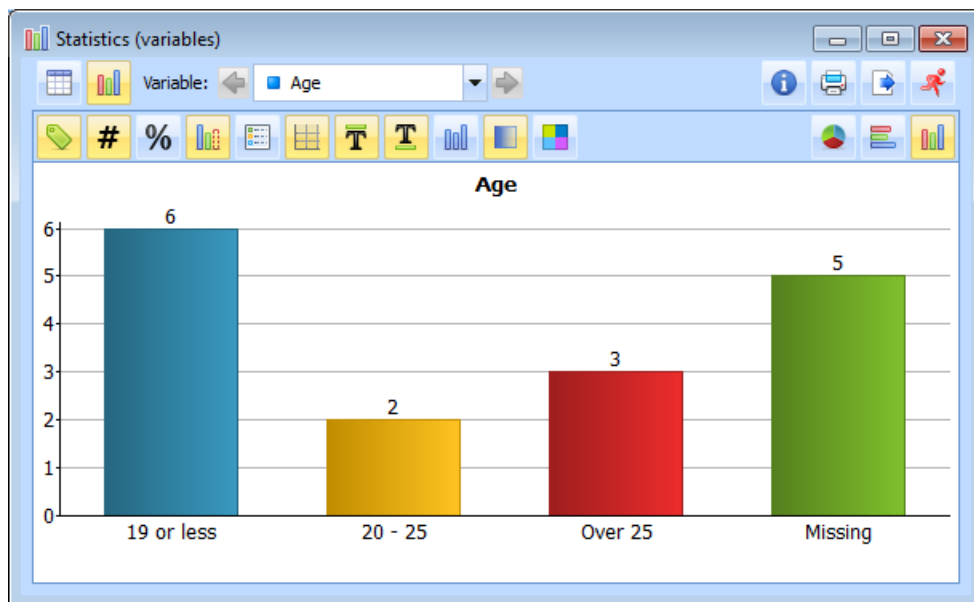
You can customize the order of the rows within the table by clicking on the column header of the first and second columns. For example, you can sort the table in ascending or descending order in regards to categorical frequency.

The results window has a toolbar at the top. From here you can:

- ☐ Call up the chart view by clicking the button
- ☐ Flip forwards or backwards between variables
- ☐ Print results, or
- ☐ Export results as an Excel file

Charts

When you switch to the chart view with the  button, a bar chart of the variables in question appears in the place of the table view.



Horizontal bar chart of the document variable "Age"

Note: The order of chart segments is determined by the order of the rows in the table, and can be modified accordingly.

You will see two toolbars at the top of this window. The upper toolbar is the same as the frequency table, and you can switch at any time to the table view. On the right side of the toolbar you will see three buttons, with which you can choose between pie chart, horizontal and vertical bar chart. The chart can be customized using the options in the lower toolbar



Display labels – hide or show categorical labels of bar and pie charts on the x-axis.



Display data values – hide or show the data label, meaning frequency of variable values or subcodes.



Display percentages – show relative, rather than absolute frequencies.



Display missing values – hide or show missing values categorie.



Display legend – hide or show the legend, which is switched "off" by default in bar charts.



Display scale – hide or show the scale axis in bar charts.



Display title – hide or show diagram title.



Display text – hide or show textual description of diagram.



One color – use the same color for all pie or bar chart segments.




Color gradient – add color gradient to pie or bar chart segments



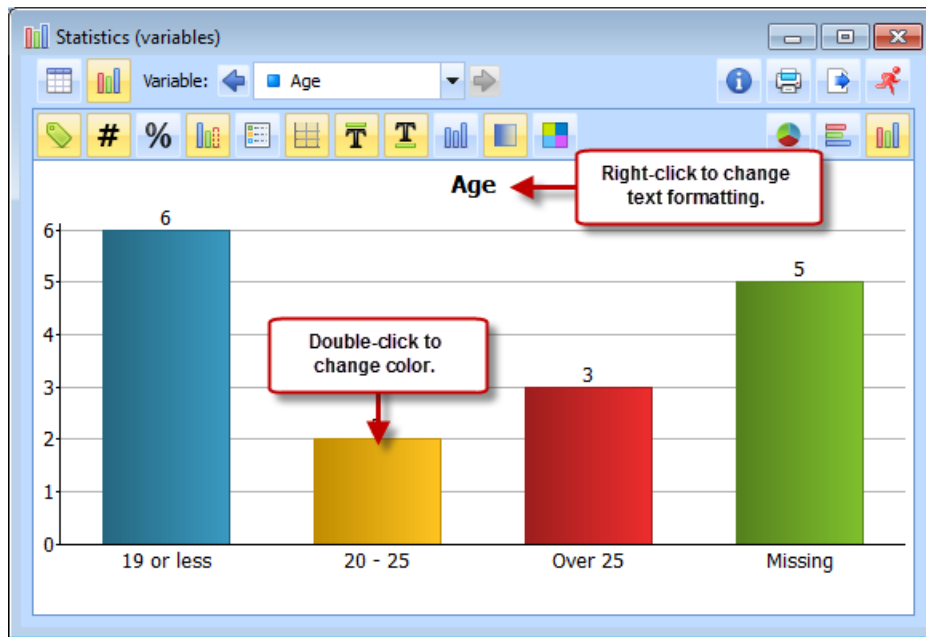
Change color scheme – opens window for color scheme selection.

Customizing Chart Captions, Color and Font Sizes

When creating charts, MAXQDA sets an initial color scheme. To customize your charts, double-click on the selected segment and choose your desired color. Click on the **Change color scheme**  button to select between three preset color schemes.

Double-click on the title or description to customize content.

Formatting, such as font, font size and font style, can be changed via the dialog window that appears when you right-click on the title, description or another label.



Modify color and font size in charts

Print and Export Charts

Like frequency tables, charts can be printed and exported. Charts will be exported in PNG format, or as vector graphics in SVG format.



Missing Values in Frequency Tables and Charts

MAXQDA will treat the following as missing variable values:

- ☐ For numerical variables, values set as “Missing values” in the “List of variables” will be treated as missing.
- ☐ For string variables, blank fields will be treated as missing.



16 Summary-Grid

16.1 The Idea behind the Summary Grid

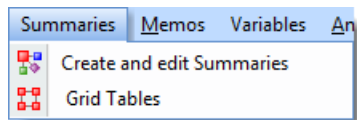
The systematic analysis of texts or other information is often about analyzing the data systematically within a structural framework, summarizing it and then grouping it in different categories.

The idea is to look for theoretical explanations for certain phenomena as well as for similarities and differences between texts. In this process, it is important to focus on what the research participants precisely said. But on the other hand, the researcher should also detach from the participants own words. His aim is to sum up and express what was said abstractly, and to eventually present it in a way that is understandable for the recipient. During this analytical procedure, the “raw data,” that is for example interview transcripts, records, field notes etc., should be accessible at all times.

The Summary Grid function of MAXQDA distinguishes two work stages and offers two individual working environments for these stages:

The first stage is creating a summary and the second is creating result tables (so called “Grid Tables”) based on the summaries.

These two functions are accessible from the **Summaries** drop-down menu:



Menu item “Summaries”


In order to create summaries, the segments that you want to analyze must already be grouped thematically. This might have been done with the use of structured interviews, thematic coding, or automatic coding. If the text is already coded with a Code System, a structure texts * codes already exists; you can view it using the Code Matrix Browser.

You can picture the summary level as a thematic grid, i.e. a matrix documents * categories (codes). MAXQDA has a matrix like this called the Code Matrix Browser (CMB). It displays the texts in the columns and the categories in the rows.

The Summary Grid is a second analytical level that contains the summaries written by the user for every node of the CMB. The user writes individual summaries and can edit them later, e.g. by adding or altering the information. The idea is to present the summaries in overview tables at a later stage of the analysis. This grid allows every summary to stay linked to the original text segment from the raw data.

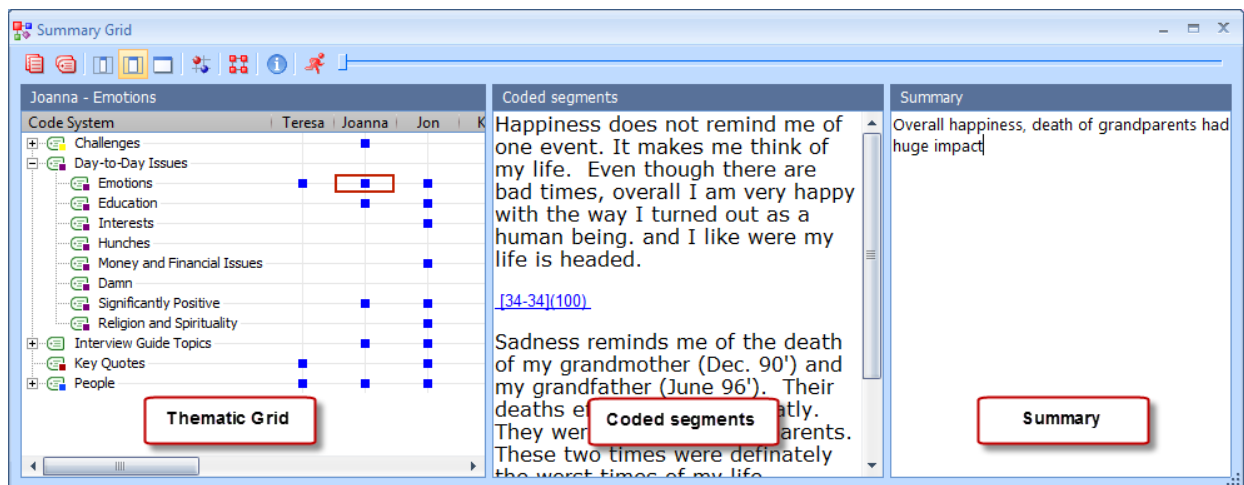
16.2 Creating and Editing Summaries

To create and edit summaries,

- ☐ Select the menu item **Summaries > Create and edit summaries**,
- ☐ Or click the correspondent button  in the “MAXQDA standard” toolbar.



MAXQDA then opens a new window called “Summary Grid.” The window itself is divided into three areas:

- ☐ **Left window:** the thematic grid, the Code Matrix Browser display
- ☐ **Middle window:** the coded segments, so exactly what is normally listed in the “Retrieved Segments” window after double-clicking a node in the Code Matrix Browser
- ☐ **Right window:** the summary, this is where the summary is displayed, created and edited.




Window “Summary Grid”

You can adjust the content of the columns and rows of the grid on the left with two buttons:

-  **Only activated documents** – only documents that have been activated in the “Document System” will appear as columns.
-  **Only activated Codes** – only Codes that have been activated in the “Code System” will appear as rows.

Additional buttons offer the following functions:

-  **Names, columns: none** – in the left window, the document names will not be displayed in the column header



Names, columns: short – in the left window, the document names will be appear in the column header in short form



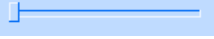
Names, columns: full – in the left window, complete document names will be displayed in the column header



Display nodes as circles on/off – switches between the display of nodes as circles or squares in the left window



Grid Tables – opens the window “Grid Tables” (see below).

On the right side, there is a slider  that you can use to scroll the window horizontally, the first column remaining fixed.

In the right window, you can write and edit a summary for the node you have selected in the left window. You can select a node by clicking on it. The summary will automatically be saved after selecting a different node or closing the window.

Tip: You can move text segments from the middle window “Coded segments” to the right window via Drag & Drop. This way you can easily insert citations in the summary.

16.3 Grid Tables

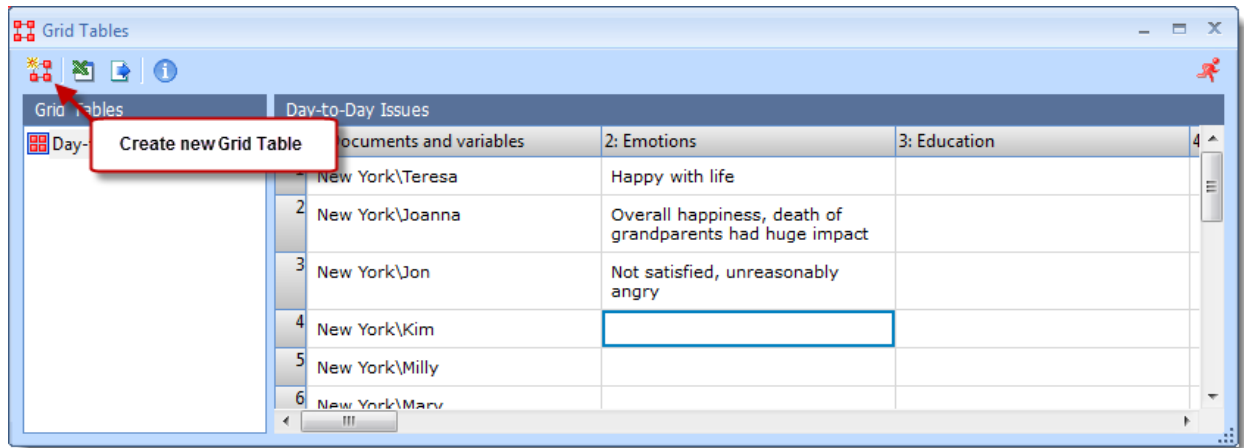
A “Grid Table” is an overview table of summaries and document variables for selected documents and codes. It gives you an overview of the summaries for selected topics. Grid Tables are a useful tool for presentations and publications.

To create or view Grid Tables,

☐ select the menu item **Summaries > Grid Tables**

☐ or click the correspondent button .

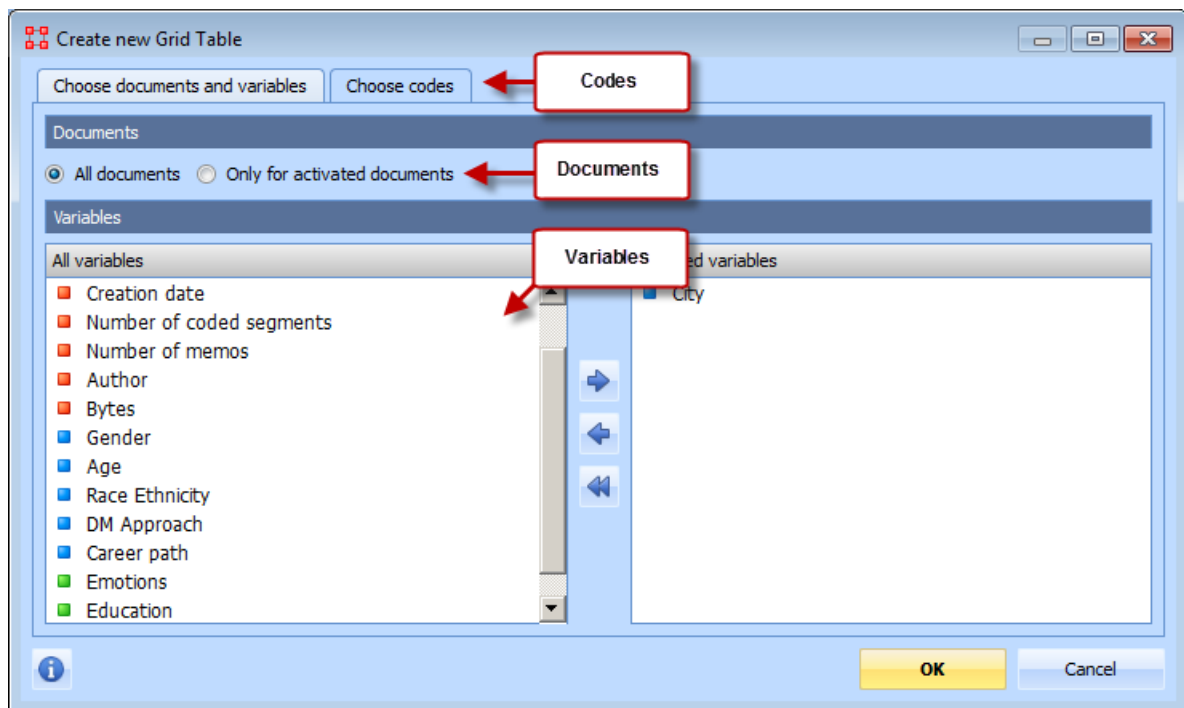
This will open the Grid Tables window. This window is structured similarly to MAXMaps. On the left side you find a list of the Grid Tables you have already created and in the window on the right you can view the Grid Table that is currently opened.



Window "Grid Tables"

To create a new Grid Table, click the button at the top left. A dialog window will appear that offers three options:

1. You can decide whether to include all documents or only activated documents. This defines the rows of the Grid Table.
2. You can choose which document variables you would like to display for each row.
3. You can select any number of Codes, to be displayed in the columns of the Grid Table.



By clicking OK, the table will be created according to the parameters you have chosen:



Grid Tables		Day-to-Day Issues	
	1: Documents and variables	2: Day-to-Day Issues	
1	New York\Teresa Female Over 25	Sad about death of grandparents, overall happy; has problems with sports	
2	New York\Joanna Female 20 - 25	Satisfied with her life; having problems with her diet	
3	New York\Jon Male 19 or less	Not happy with his health; trying to improve lifestyle	
4	New York\Kim Female		

Grid Table

The Grid Table lists all summaries for the selected codes.

In the first column of the Grid Table, you can see the *document group* and *document name*. In addition, the *variable values of the variables* chosen are displayed underneath each document. This enables you to receive further information about a certain case in the Grid Table.

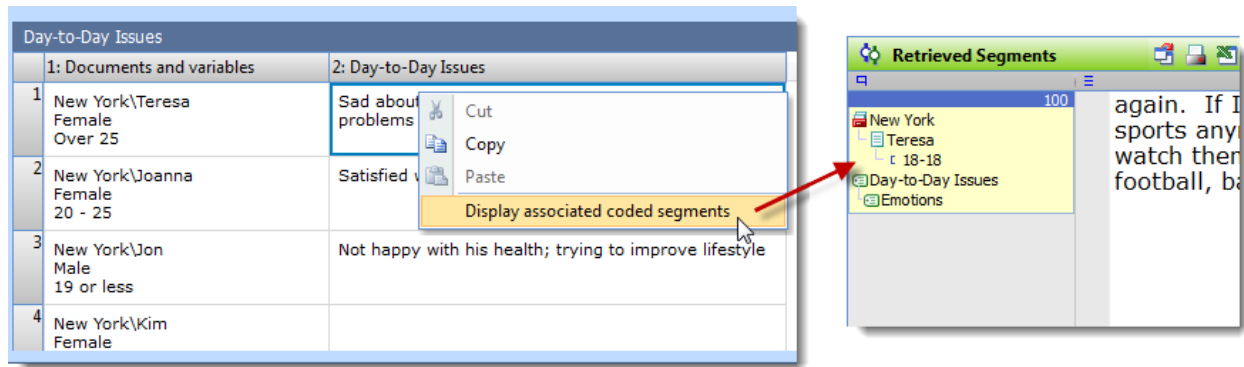
All table functions of MAXQDA are available:

- ☐ You can change the order of columns via Drag & Drop.
- ☐ You can hide or display columns (right-click on the column header and choose **Select fields**).
- ☐ You can order columns alphabetically by clicking on a column header.

The table is in plain text format, so the entire table is formatted with the same font.

Note: You can edit any cell of the Grid Table individually, that means you can modify the summaries displayed. Changes in the content of the Grid Table will also affect the summaries. This means that the content of the corresponding cell in the Summary Grid also changes accordingly.

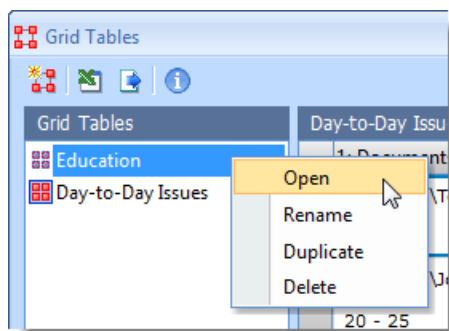
Each cell of the Grid Table is connected invisibly to the assigned coded segments. These can be viewed in the window "Retrieved Segments" by right-clicking in the cell of the Grid Table and choosing "Display associated coded segments."



Interactive cells in the Grid Table

Opening, Deleting, Duplicating and Renaming Grid Tables

To open an existing Grid Table, double-click on the name of the Grid Table in the left panel. You can also right-click on the name of a table to open a context menu that allows you to open, rename, duplicate or delete the table.



Context menu on a table name

Note: The Grid Table is dynamically linked to MAXQDA data. As soon as you open a Grid Table, it scans your project for deleted documents, codes or variables, so that they can be removed or updated if necessary.

17 Mixed Methods Functions

17.1 General

MAXQDA is one of the pioneers of method integration. Functionality for working with both qualitative and quantitative data was already available in the very first version of the software, which came out in the late 1980s. The option to view a matrix of quantitative data parallel to the texts has been a keystone of these mixed methods. In the previous version, MAXQDA 10, the option to create code variables was added, which makes it possible to assign variable values to different sections of a single document (e.g. for various speakers in a group discussion).

Functions that combine qualitative and quantitative data are available in the **Mixed Methods** drop-down menu:

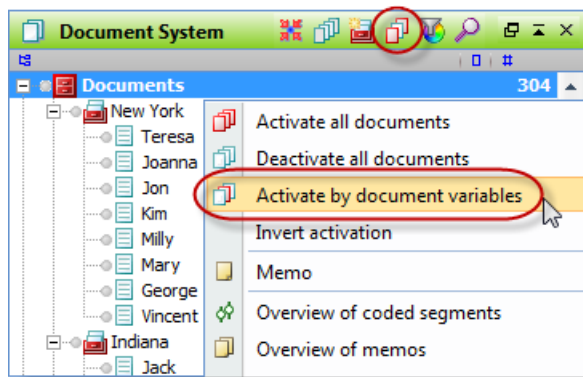
- ☐ **Activation by document variable** – lets you activate documents to be included in retrieval based on document variable values. You could, for example, use this function to identify what men between the ages of 40 and 50 said about migration issues.
- ☐ **Quote Matrix** – creates a Word file showing what different groups said about a theme based on certain variable values that you specify. Each group's coded segments for the specified codes are in a different column. You could, for example, choose to see how those with various levels of education differ on their approach to combating homelessness.
- ☐ **Crosstabs** – works parallel to the Code Matrix Browser, except that this function doesn't work on the document level. Instead, you can create groups based on your variable values and compare how often each of these groups talks about each theme. You could, for example, compare how often men talk about relationships in your life satisfaction interviews in comparison to women.
- ☐ **Typology Table** – shows an overview of variable values for qualitative typologies that you have created (e.g. for people with various views on combating their own homelessness). You could see, for example, what the mean age, gender breakdown, and average time already homeless is for the "apathetic pessimists" in comparison to the "proactive optimists."
- ☐ **Configuration Table** – This table shows which combinations of codes exist in selected documents.
- ☐ **Statistic of subcodes** – MAXQDA's statistics and graphics module lets you create frequency tables and charts for subcode frequencies.

17.2 Activation by Document Variable: Variables as Selection Criteria for Retrievals

The retrieval function in MAXQDA makes it possible for you to call up segments with selected codes in selected documents. For simple retrievals documents and/or document groups you are activated manually in the “Document System.” This activation is done via right-clicking on the document or document group and choosing **Activate** or by holding the Ctrl key and left-clicking on the selection. More complex, selective retrievals, however, can’t be done as easily with this method.

In addition to manual activation, there are also automatic activation options. With the **Activate by document variable** function, you can choose to activate documents based on the variable values that have been assigned to them. If you have defined variables for gender, age, and education level, for example, you could choose to select only those documents that represent women over the age of 40 that have at least a high school education. These activations can be made by entering the appropriate formulas. The formula syntax in MAXQDA is similar to that of statistics programs like SPSS.

The “Activate by document variables” function always processes the entire project. You can access the function by choosing **Activation by document variables** from the **Mixed Methods** drop-down menu or by right-clicking on the **Documents** icon in the “Document System” and choosing **Activate by document variables** from the context menu that appears.



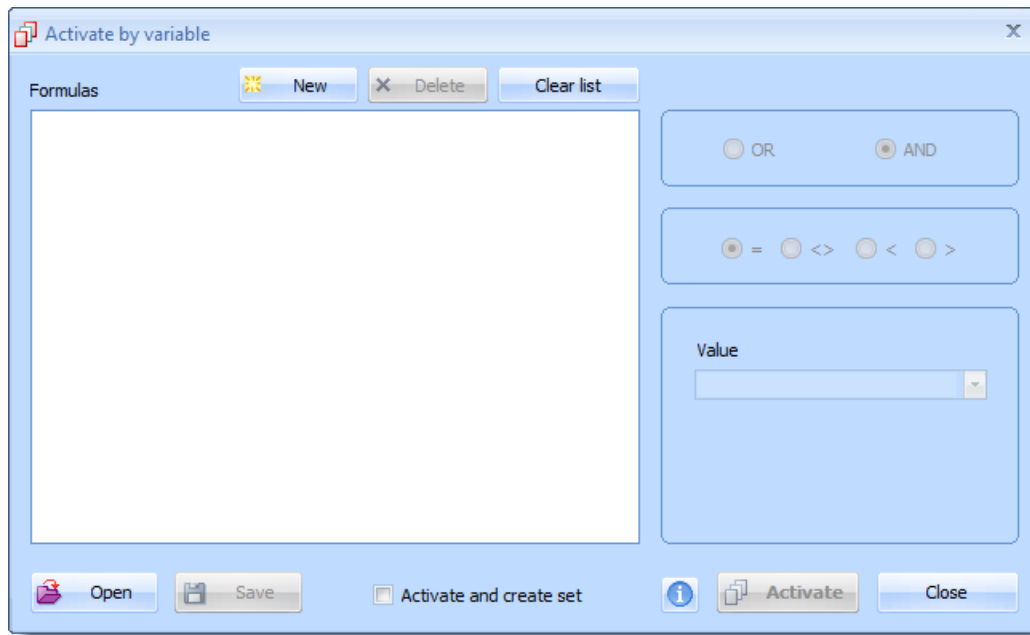
Accessing the function from the context menu

Note: If there are already some documents activated, you should reset these activations before starting the automatic activation process. You can do this by clicking on the **Reset activations** button in the “MAXQDA standard” toolbar.

After clicking on the appropriate button, a dialog window will appear where you can enter the formulas for activation. In the example mentioned above, we would want to activate only document with women over the age of 40 with a high school education. The dialog window is made up of the following sections:



- ☐ A section for the logical formulas and the buttons to create a new formula, delete the currently selected formula, or delete all formulas.
- ☐ Checkboxes for selecting operators.
- ☐ Buttons for opening or saving formulas.
- ☐ Buttons for carrying out the activations.



Dialog field for activation by variable

All logical formulas must have the following components:

variable name / operator / value

If you have created a variable called "gender" and used the characters "m" for male and "f" for female, we would use the following formula in order to activate those documents that are interviews with women:

gender = w

Example

Let's say a study was conducted about the effects of the Gulf Oil spill on the reputation of offshore drilling companies, and all documents have already been coded. A variable was created based on the presence or absence of a critique of drilling company management ("Criticism"). If there was such critique in a document, the variable value was set to "Y." Otherwise it was set to "N."

Now, if we only wanted to activate those documents that included critique of company management, we would use the following formula:

Criticism = Y

To do this, you would follow these steps:

1. Click on the **New** button.
2. Choose the variable **Criticism** from the list of variables by checking the box next to it and clicking **OK**.

You will now see the following text in the formula window:

[Criticism] =

The only thing that is missing at this point is the variable value. On the right side of the screen you will see a field where you can enter the value. Here you could enter "Y," or simply click on the arrow to open the drop-down menu and select a value from the list of all the values that have been entered for a document up to that point. In our example above, both "Y" and "N" would be in the menu. Using this menu helps you to avoid any typos.

Be careful when typing in values: MAXQDA variable values are case sensitive, so it makes sense to simply pick the value from the drop-down list.

Since the "=" operator is used most often, it is automatically selected when you start a new formula. If you want to use a different logical operator, simply choose it from the right side of the window.

The operators have the following meanings:

- = Selects variable values that are the same as the formula value.
- <> Selects variable values that are not the same as the formula value.
- < Selects variables values that are smaller than the formula value.
- > Selects variable values that are larger than the formula value.

In our example, we wanted to activate those documents where the person did include critique of the company management, so the "=" operator is appropriate. We would want to see those documents with the variable value equal to the formula value ("Y").

If you are starting a formula with a numerical variable, a "0" is inserted automatically until you change it.

Results of Activations by Document Variable

Once you have entered the correct logical formulas, you can start the automatic activation. Click on the **Activate** button.

MAXQDA then checks the variable values assigned to each document to check whether it matches the formulated criteria. The automatic activation window is closed, and you will be brought back to the standard MAXQDA four-window interface. The documents that matched the criteria are now activated (marked red) in the "Document System."



Tip: The status bar at the bottom of the MAXQDA window shows you how many documents have been activated.

If you also had codes activated, you will immediately see results of your retrieval in the “Retrieved Segments” window.

Changing and Saving Formulas

After starting the automatic activation process, the dialog window is no longer seen. The formulas, however, will still be in that window the next time you open it.

You can change the logical formulas (operators and values) at any time:

- ☐ Click on the **Formula** in the dialog window, and select another operator.
- ☐ If you want to change the value, simply enter the new value or select it from the drop-down menu.

After you have changed the formula, click on the **Activate** button to restart the activation.

You can also save a formula, so that you can have quick access to it at a later time. Just click on the **Save** button at the bottom of the dialog window. You can then give it a name and choose where you want to save it.

Files for saved logical formulas are saved by MAXQDA as .LOA (logical activation) files. To open a saved formula, choose **Open** and navigate to the place you saved the .LOA file. It makes sense to set up a folder for all of your LOA files, so they are easy to find.

Complex Logical Formulas

It is also possible to combine various logical formulas. The basic units of these combinations are still the formulas in their basic form:

variable name / operator / value

Combining formulas just means that you are connecting two of these basic formulas with an operator.

In the above example, we activated documents where the value for the variable “Criticism” was “Y.”

If you want to further limit the results, so that you only see what women that critiqued management had to say, we would want to include a second formula where the value for the variable “Gender” is “f” for female.

This second formula would just need to be added and given the **AND** operator, so that documents will be found that have variable values indicating that it is a woman, and the woman critiqued management. The second formula, then, would be created as follows:

- ☐ First click **New** in the dialog window, and then
- ☐ Choose **Gender** from the list of variables.

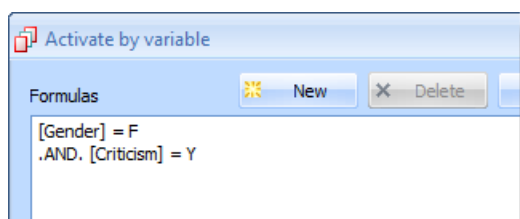
The new formula should now look like this:

[Gender] =

- ☐ Now you can select the value **f** from the drop-down menu.
- ☐ MAXQDA automatically inserts the “OR” operator. In our case, we want to use the “AND” operator, so we would need to click on that **option** on the right side of the window. The formulas will now have the “AND” operator between them instead of “OR.”

In this way, you can add as many combinations of logical formulas as you want. You can then click **Activate** to start the activations.

The combination operators OR and AND have the following affect on the results of your activation process: If you choose the OR option, MAXQDA looks for documents that meet at least one of the various formulas’ criteria. If you entered the formulas “Criticism = Y” OR “Gender = F,” you will get all the documents that included critique of management as well as those that were women. For our example, then, the OR option would not be appropriate. We want both formulas to be met, so we would need to use the AND operator, so that it looks as follows:



A complex logical formula

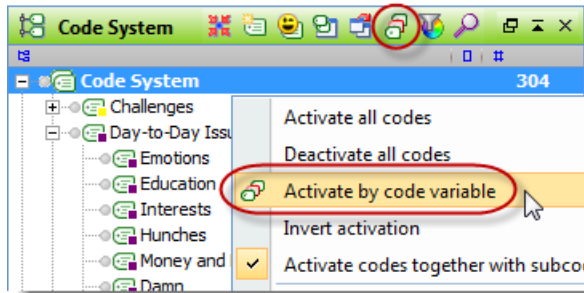
Deleting Formulas

It is possible to go back and delete a formula at any time:

- ☐ Click on the **formula** to highlight it.
- ☐ Click on the **Delete** button.

Using Code Variables for Activation by Code Variable

It is not only possible to activate documents based on their document variables; you can also activate codes based on their assigned code variables. The **Activate by code variable** function can be accessed by right-clicking on the **Code System** icon and choosing the **appropriate option** in the context menu that appears, or by clicking the icon in the “Code System” window toolbar.

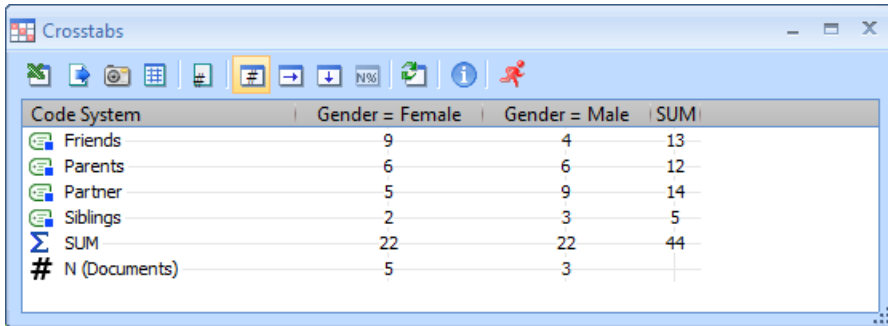


Activate by code variable function in the "Code System" icon's context menu

17.3 Crosstabs

The Crosstabs function has some similarities to the Code Matrix Browser, except that documents are analyzed grouped by document variable. Social groups, such as men and women, or people with different personal background, etc. can be compared based on variable values. All of the variables that are in your project can be used to set up a group.

Crosstabs is a visualization of the relationship between document variables and codes. The following example displays the number of times each code was assigned woman or men.



Code System	Gender = Female	Gender = Male	SUM
Friends	9	4	13
Parents	6	6	12
Partner	5	9	14
Siblings	2	3	5
SUM	22	22	44
# N (Documents)	5	3	

Crosstabs example based on gender

The **Crosstabs** function can be accessed in the **Mixed methods or Visual tools** drop-down menu or in the Visual Tools toolbar as seen below.



Crosstabs icon in the "Visual tools" toolbar

Tip: In order to have access to this function, you need to have activated at least one code.

The Crosstabs toolbar at the top of the window includes the following functions:



Opens the Crosstabs matrix in Excel.



Exports the Crosstabs matrix in either XLS/X or TXT (tab delimited) format.



Saves a snapshot of the window as it is currently seen in BMP format for later use in a presentation.



Opens a Quote Matrix for the codes and groups of the Crosstab in Word.



Changes the unit of analysis for numerical calculations. You can choose to only display if a document contains the code or not, rather than the total number of segments coded with that code.

The next four icons set how the values are shown in the matrix cells:



Number of segments – meaning the code frequencies for each group are shown as a value.



Row percentage – meaning the value for each cell is shown as a percentage of the frequency of the code in that row (horizontal percentage).



Column percentage SUM – meaning the value for each cell is shown as a percentage of the frequency of the code in that column (vertical percentage).



Column percentages #N – meaning the value for each cell is shown as a percentage of the number of documents which contain that code (can only be selected if the option “Unit for analysis: documents” is activated).



Refresh – recalculates the values in the table.

Crosstabs are well suited for the analysis of sub-categories and their distribution in sub-groups of the sample. Imagine you have asked how students prepare for examinations, and the different options (e.g. reading books, working together with colleagues, etc.) are defined as codes. With the Crosstabs function, you can compare various groups with each other. Are female students participating more in training groups? Do male students read more text? The options to view the values as row or column percentages make the interpretation of the data even easier.

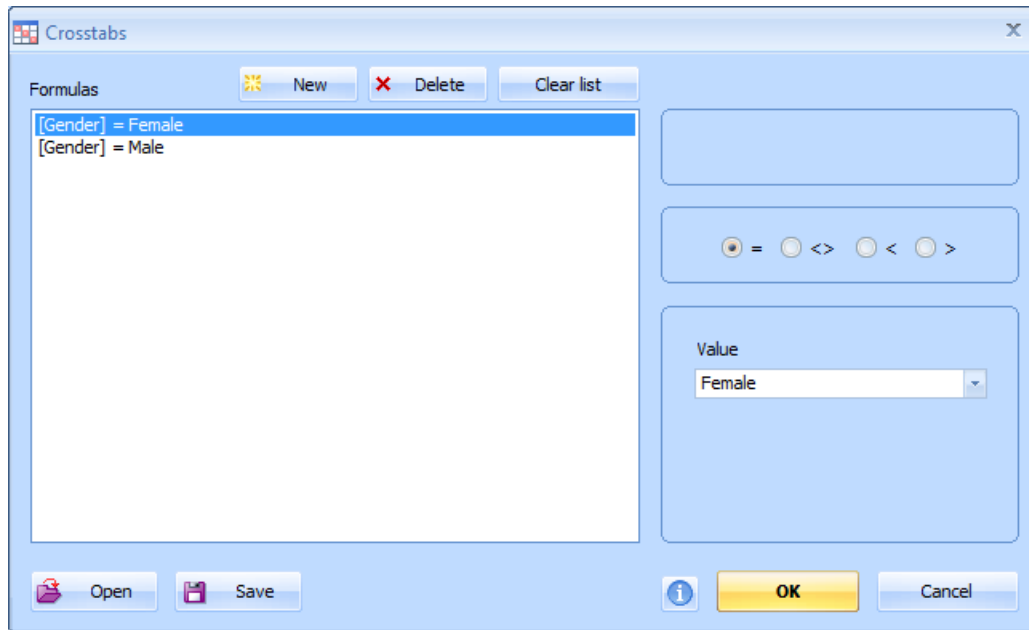
Selection of Codes and Attributes

You need to select at least one code and one variable (or more precisely, a variable value) to create Crosstabs. If no codes are activated, the Crosstabs function is gray and can't be called up. As usual in MAXQDA, the selection of codes is done via activation. The selection of variables values is done in a dialog window that pops-up when you start the Crosstabs function. The window looks similar to that for the “Activation by variable” function.

After activating codes and selecting Crosstabs, you will have the option to create logical formulas that will be used to assign documents to each column. The window is broken up into the following sections:

- ☐ A section for the logical formulas and the buttons to create a new formula, delete the currently selected formula, or delete all formulas.

- ☐ Buttons for selecting operators.
- ☐ A drop-down menu for selecting variable values.
- ☐ Buttons for opening or saving formulas.
- ☐ The buttons for creating the Crosstabs visualization.



The Crosstab dialog window

All logical formulas must have the following components:

variable name / operator / value

If you have created a variable called “Gender” and used the characters “Male” for male and “Female” for female, we would use the following formula in order to create one column of the Crosstabs to represent women:

Gender = Female

If you wanted to create one column for women and one for men, you would follow these steps:

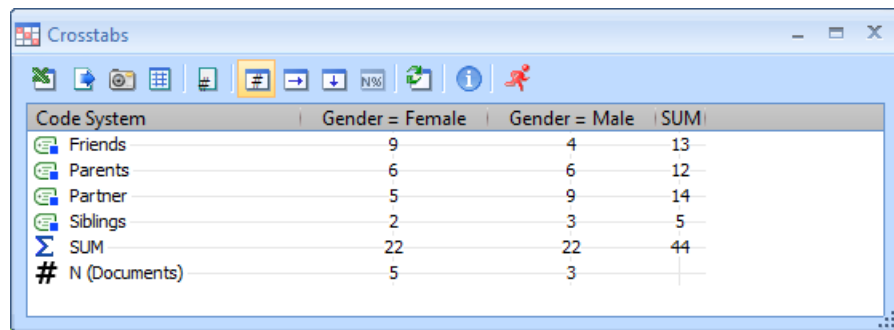
1. Click on the **New** button.
2. Choose the variable **Gender** in the window that appears by checking the box next to it and clicking **OK**.
3. Check the box next to **insert all values into the table**.
4. Click **OK**.

MAXQDA then lists the formulas that you have set up. In our example, it would look as follows:

[Gender] = Male

[Gender] = Female

The Crosstabs created in this way would look as follows:



Code System	Gender = Female	Gender = Male	SUM
Friends	9	4	13
Parents	6	6	12
Partner	5	9	14
Siblings	2	3	5
SUM	22	22	44
# N (Documents)	5	3	

Crosstabs comparing the number of coded segments for each code by women and men

If there are many different possible values for a certain variable, you can choose to delete those that you don't want to include in the visualization. If, for example, you had a variable "level of organization" with possible values "very high," "high," "medium," "low," and "very low," you might only want to compare the two extremes. To do this, you would click on the formula for each of the other three values and delete them.

You can also compare groupings based only on specific variable values by not checking the box to **Insert all values into the table**. Instead, you would simply create a formula and add single values by following these steps:

1. Click on the **New** button.
2. Choose a variable from the list by checking the box next to it and clicking **OK**.
3. Insert the appropriate variable value in the field on the right side of the window or choose it from the drop-down list. The drop-down list will have all the values that were assigned to the chosen variable. Choosing the value from the list helps you avoid any typos that would cause you to get false results.
4. Repeat the first three steps to set up each column of the Crosstabs.
5. Click **OK** to create the table.

You can also save formulas, so that you can have quick access to them at a later time and don't have to reenter them one by one. Just click on the **Save** button at the bottom of the dialog window. You can then give it a name and choose where you want to save it.

Files for saved formulas are saved by MAXQDA as .LOA files. To open a saved set of formulas, choose **Open** and navigate to the place you saved the .LOA file.

17.4 Quote Matrix

The Quote Matrix is based on the same idea as the Crosstabs function, i.e. to create a joint display of themes and quantitative variables. The Quote Matrix does this on a more detailed, non-aggregated level. Here the coded segments themselves are listed in the cells of the matrix, not only the number of coded segments for that particular cell. In the example below, we can see a comparison about what married and single people said about certain themes.

Code	Family status = married	Family status = single
emotions	<p>Happiness does not remind me of one event. It makes me think of my life. Even though there are bad times, overall I am very happy with the way I turned out as a human being. and I like were my life is headed.</p> <p><i>(New York/Joanna, 34-35)</i></p> <p>Sadness reminds me of the death of my grandmother (Dec. 90') and my grandfather (June 96'). Their deaths effected my life greatly.They were like my second parents. These two times were definately the worst times of my life</p> <p><i>(New York/GINA, 12)</i></p>	<p>I feel as if I am very healthy and I know that I have a firm background on what being healthy means because of my interest in Nutrition and Exercise. I always to try to eat better and make the right choices and exercise on a regular basis. I really think that those two components contribute highly to health. But, health also means emotionally, mentally and even spiritually. I feel like my spiritual life really contributes to the rest of my health because I take care of my body because God tells us to in the Bible and everything else falls into place.</p> <p><i>(New York/Milly, 11)</i></p>
education	<p>My career now is college. I am graduating this weekend from my Community Health Undergraduate program at Hofstra University. I am continuing my undergraduate studies at CW Post in the fall to get a BS in nutrition. Getting my RD is my major career choice. My satisfaction level on my career is only a 7 because I am not looking forward to going back to undergrad college but it is the only way I can achieve a license.</p> <p><i>(New York/GINA, 17)</i></p> <p>Overall I am pretty happy with my mental, social and physical health. I would like to improve my dedication to working out. I am the type of person who will work out 5 times a week for a month staight and then is slowly turns into less days a week until it is none. I get distracted by school work, my job or just being tired.</p> <p><i>(New York/Silvia, 42)</i></p>	<p>My major is Dietetics and I am planning on working with children at either a center or a Children's Hospital and do meal plan counseling for children that need special diets because of sickness, or whatever the case may be.</p> <p>I know that will not be happy in my occupation unless I work with children. I have a heart for kids and I found this out by working a summer camp for kids for the past 2 summers.</p> <p>I started taking a Nutrition class last year and decided that it interested me and found out what kind of jobs that I could get involved with by talking with my counselor and it all worked out great.</p> <p>(...)</p> <p><i>(New York/vincent, 12)</i></p>

Example of a Quote Matrix with the sources (document, paragraph) highlighted yellow.

MAXQDA creates a table that shows the same coded segments that would be numerically listed in the Crosstab, but here they are dispayed as text.

In theory, it would be possible for you to create a Quote Matrix on your own by doing retrievals in MAXQDA for each group and copying them from the “Retrieved Segments” window into a table in Word, but this would take a lot of time

The results of your Quote Matrix are opened automatically in whatever program is set to open RTF files (e.g. Microsoft Word). The coded segments retain the formatting that they had in MAXQDA. If some of your documents are formatted differently than others, this could lead to a chaotic-looking document. It is recommended in these cases, that you highlight the whole table and assign the same font and size to it.

In order to ensure that the Quote Matrix is readable, it is limited to a maximum of four columns. If you absolutely have to have more columns than that, you can create two different ones and bring them together in your word processor. The Quote Matrix assumes that you are working with categorical variables. If you want to display metric variables, you need to use the Typology Table.

Note: The number of columns in the Quote Matrix is limited to a maximum of four.

17.5 Typology Table

This function offers yet another way to combine quantitative data and your codes or categorical variables. It is called a Typology Table, because it is able to calculate various variables and their percentages (means, standard deviations, etc.) for qualitative typologies.

The table is set up similarly to the following example from Creswell and Plano’s book “Designing and Conducting Mixed Methods Research” (2010: 292):

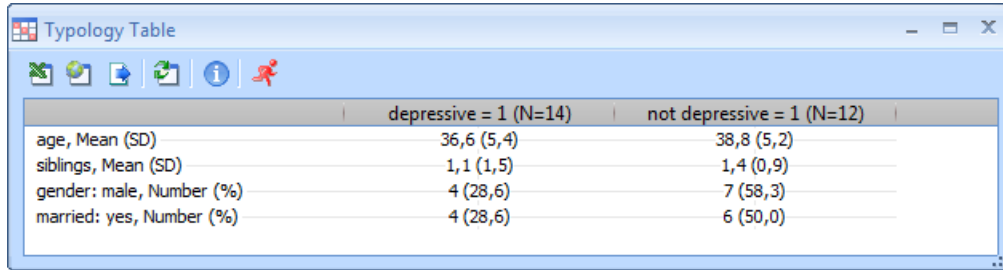
Characteristics	Physician Rated Patient Depressed n = 27	Physician Rated Patient Not Depressed n = 21	P Value
Sociodemographic characteristics			
Age, mean, No. (SD)	73.0 (5.3)	77.1 (5.3)	.012
Women, No. (%)*	21 (79)	15 (71)	.623
African American, No. (%)*	10 (39)	12 (57)	.173
Education less than high school, No. (%)*	8 (30)	10 (48)	.210
Psychological status			
CES-D score, mean (SD)	18.3 (13.5)	15.6 (10.0)	.450
BAI score, mean (SD)	10.0 (9.2)	11.8 (8.5)	.498
BHS score, mean (SD)	5.5 (4.1)	4.8 (3.7)	.607

Example of a Typology Table

This table shows a comparison between two types of patients, “Depressed” patients (27 persons) and “Not Depressed” patients (21 persons). The last column p-Value shows the statistic significance of the mathematical means. The first row shows the average age of both groups and the standard deviation in brackets.

The row “Women” contains the number of women and their percentage. This means that of the 27 depressed persons 21 are women, which is exactly 79%.

As we can see, the rows consist of variables, metric variables to be exact, and specific values of categorical variables – either string or numerical variables. The columns follow the pattern of Crosstabs.



	depressive = 1 (N=14)	not depressive = 1 (N=12)
age, Mean (SD)	36,6 (5,4)	38,8 (5,2)
siblings, Mean (SD)	1,1 (1,5)	1,4 (0,9)
gender: male, Number (%)	4 (28,6)	7 (58,3)
married: yes, Number (%)	4 (28,6)	6 (50,0)

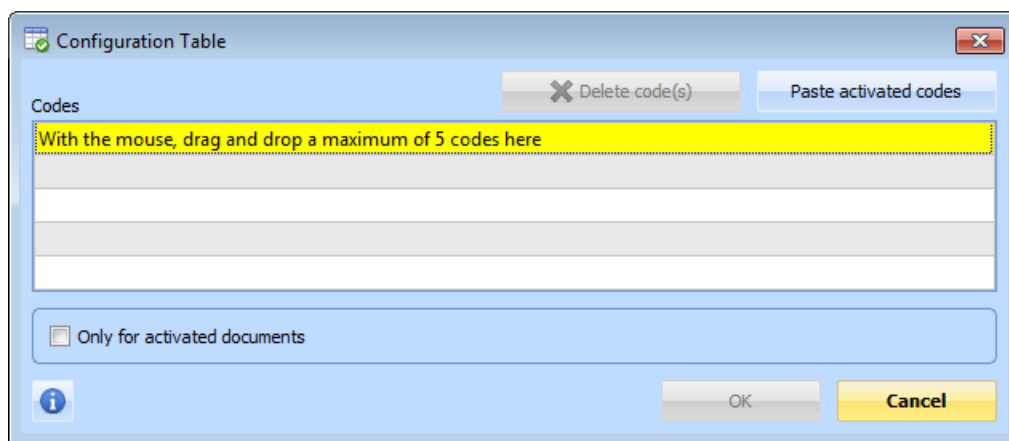
Example of a Typology Table

17.6 Configuration Table

The Configuration Table is a Mixed Methods tool that shows you at a glance how frequently a set of codes appears in a document.

To create a new Configuration Table, go to **Mixed Methods > Configuration Table**.

This will open a dialog window. You can pull up to 5 codes from the “Code System” into this window via Drag & Drop. You can also insert your activated codes in this window by clicking the button **Paste activated codes**. If you have activated more than five codes only the first five of the “Code System” are inserted. You can delete one or more codes with the button **Delete code(s)**.



Selecting codes for the Configuration Table

You can restrict the evaluation to the documents you have activated with the option **Only for activated documents**.

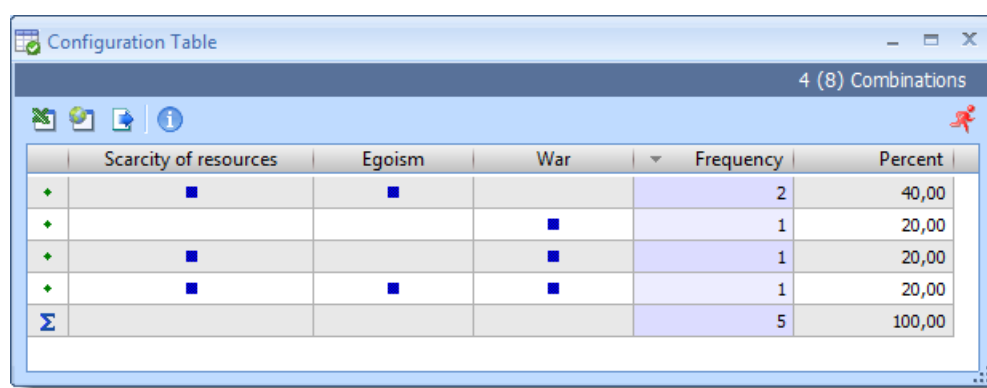
Click **OK** to view the result of the evaluation. It is made up of two results tables: the Configuration Table and the Configuration Table – detail view.

1. Results Table: Configuration Table

In this table the columns contain the codes you have chosen aswell as two additional columns containing "Frequency" and "Percent." Every row contains one possible combination of codes.

Note: A combination of codes that does not occur will not be displayed in the table.

For example, a results table for the combination of three major global problems could look something like this:



	Scarcity of resources	Egoism	War	Frequency	Percent
♦	■	■		2	40,00
♦			■	1	20,00
♦	■		■	1	20,00
♦	■	■	■	1	20,00
Σ				5	100,00

An example for a Configuration Table

Looking at this table, you can see that two documents exist which contain the first code "Scarcity of resources" and the code "Egoism." There is one document with the code "War" and none of the other two codes and another document containing the codes "Scarcity of resources" and "War." There is also a document containing all three codes.

The column "Frequency" tells you how many of the evaluated documents contain a certain combination. The sum row also tells you how many documents were evaluated – in the example shown it was five documents.

In the top right corner you see the number of combinations that actually exist in your documents and – in brackets – the number of all possible combinations. In the example above it says 4(8) which means there are four rows for the existing four combinations. And – because we evaluated three codes – mathematically, there are $2^3 = 8$ possible combinations.

Note: In the configuration table it does not matter how often a code was assigned in a document. The table only shows you if a certain code was assigned in any of the documents at all.

The table is automatically sorted by the frequency. You can also sort it by a different column by clicking a column header. You can also adjust the order of the columns via Drag & Drop.



2. Results Table: Configuration Table – detail view

The second results table lists all evaluated documents and shows whether the selected codes appear in these documents or not. So this table corresponds to the (binarized) Code Matrix Browser, only that you can also sort it by columns.

The table has as many rows as documents were included in the analysis. The first two columns contain the document group and the name of the document. Next to these columns you see the columns for the selected codes. The column on the far right gives you the sum of the selected codes that appear in the respective document – regardless of how often those codes appears in the document.

The following screenshot shows an example of the detail view table:

The screenshot shows a window titled "Configuration Table - detail view" with a subtitle "5 Documents". The table has the following data:

Document...	Document	Scarcity of resources	Egoism	War	Sum
Interviews	B01 Tyler	■		■	2
Interviews	B02 Maria			■	1
Interviews	B03 Jennifer	■	■	■	3
Interviews	B04 Michael	■	■		2
Interviews	B05 Garnett	■	■		2

Example for a Configuration Table

Looking at this table we see that, in the document "B01 Tyler," the codes "Scarcity of resources" and "War" appear. In the document "B02 Maria" only the code "War" appears. All three codes appear in the "B03 Jennifer" document. In "B04 Michael" and "B05 Garnett" both "Scarcity of resources" and "Egoism" appear.

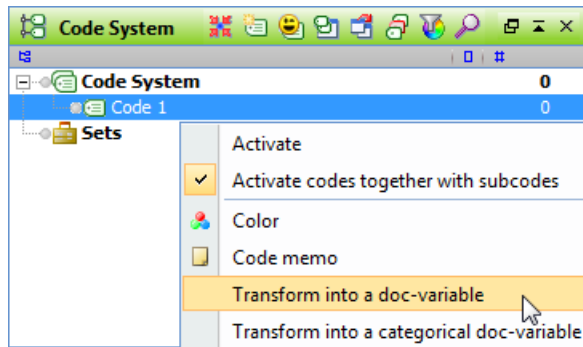
The table is automatically sorted in order of the "Document System." You can adjust the order by clicking the header of a column. You can also adjust the order of the columns via Drag & Drop.

17.7 Transform Code into a Document Variable

A code in the "Code System" can be transformed into a document variable, indicating how often the selected code appears in each document. The document variable is dynamic. MAXQDA will automatically update the document variable, i.e. increasing the variable value if a new segment is coded with the code. This feature is particularly useful as it allows the user to export code frequencies along with variables, or activate documents based on certain code frequencies for analysis.

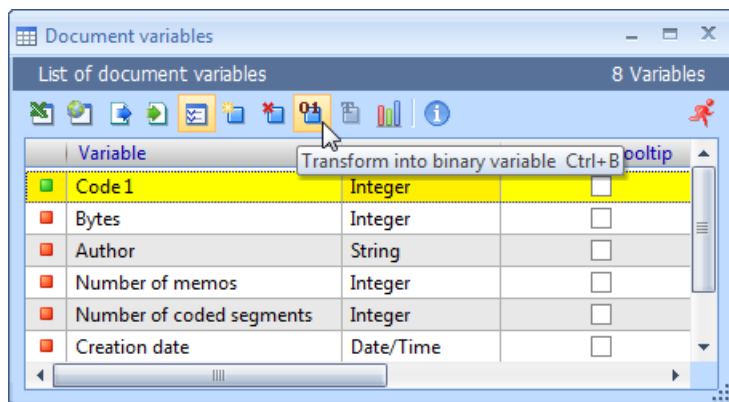
To transform a code into a document variable, right-click the code and select **Transform into a doc-variable**. MAXQDA will generate a document variable, with the same name as

the code, as a numeric variable. The program will automatically insert the code frequency of each document into the appropriate cell of the column. It opens along with the “Data editor” of the document variable and positions it in the appropriate column.



Transform a code into a document variable

In the overview of document variables the code could be binarized using the **Transform into binary variable** button. The variable is thereupon no longer indicated according frequency of an associated code in a given document, but rather whether it occurs in a document (= “1”) or not (= “0”).



Transform into binary variable

17.8 Transform Code into a Categorical Document Variable

Evaluative Categories in Content Analysis

In many research projects, forms of evaluative content analysis are used. The standard steps are to: (1) define evaluative categories, usually with ordinal variables, (2) code text segments, and (3) analyze the data descriptively and statistically. A good example of this form of analysis process is found in Philipp Mayring’s chapter on qualitative content analysis found in “A Companion to Qualitative Research” (Flick, et al., 2004), which describes scaled variations of structure content analysis.



In one of Mayring's detailed examples from a study on student teachers, a category called "self confidence" is created with three options: "high," "medium" and "low" (see below). These categories were developed from the material – one can see from the following figure that the categories are not only precisely defined, but also empirically supported with the help of the anchor examples in the material.

Category	Definition	Examples	Coding Rules
C1: high self confidence	<p>High subjective conviction to have successfully coped with the situational demands, which means</p> <ul style="list-style-type: none"> - to be clear about the demands and their coping possibilities, - to have a positive, hopeful feeling in handling the situation, - to be sure to have coped with the demands on ones own efforts. 	<p>"Of course there had been some little problems, but we solved them all, either I myself or the student gave in, depends who made a mistake. Everyone can make mistakes." (17, 23)</p> <p>"Sure there had been problems, but in the end we had a fine relationship. We got it all together." (27, 33)</p>	<p>All three aspects of the definition have to point to "high" self confidence no aspect only "middle"</p> <p>Otherwise C2: middle self confidence</p>
C2: middle self confidence	<p>Only partly or fluctuating conviction to have successfully coped with the situational demands</p>	<p>"Quite often I found it hard to maneuver through the problems, but finally I made it." (13, 45)</p> <p>"Time by time everything got better , but I couldn't tell if it was me or the circumstances." (77, 20)</p>	<p>If not all aspects of definition point to "High" or "low"</p>
K3: low self concept	<p>Conviction to have badly coped with the situational demands, which means</p> <ul style="list-style-type: none"> - not to know what the situation exactly demands, - to have a negative, pessimistic feeling in handling the situation, - to be sure that ones own efforts had no effect on improving the situation. 	<p>"that stroke my self confidence; I thought I'm a nothing – or even less than that." (5, 34)</p>	<p>All three aspects of definition point to low self confidence, no fluctuations recognizable</p>

Coding guidelines for the category "self-confidence" (from Mayring 2000:16)

The coding process, which is standard procedure for content analysis, has the researcher working through the entire data set and assigning evaluative codes to appropriate text



segments that have to do with “self-esteem.” This means that every single text segment that connects to self-esteem will be assigned the code “high,” “medium” or “low” on the basis of the coding guidelines established.

At the end, each case (in the case of interviews, a case would be an interviewed person) can be analyzed as a whole and given a summary characterization as having “high,” “medium” or “low” self-esteem. Cases characterized as having high self-esteem can then be compared with those with low self-esteem. Code frequencies can also be compared and used in combination with other categories in crosstabs.

Principles of Application in MAXQDA

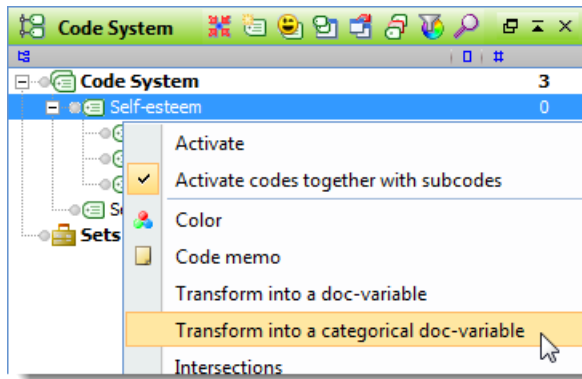
The method for evaluative content analysis can be done in MAXQDA in the following way. First, the category “self-esteem” is created as a code with the subcodes “high,” “medium” and “low.” The definitions of these codes along with anchor examples can be created as code memos.

Now the material will be analyzed, meaning that each document is read line by line. The text segments that have to do with self-esteem are identified and then coded with the appropriate code (e.g. “high” self-esteem). After an entire text has been worked through in this way, the researcher will have one of the following situations:

- ☐ Text segments about self-esteem in this document were all coded with the same subcode (e.g. “medium” self-esteem). In this situation, the entire case can be said to have a medium level of self-esteem.
- ☐ Text segments about self-esteem in this document were coded with various subcodes, but one of those subcodes obviously occurs more often (e.g. three with “high” self-esteem and one with “medium” self-esteem). In this situation it makes sense to give the whole case that level of self-esteem that is coded most often.
- ☐ Text segments about self-esteem in this document were coded with various subcodes, and none of them clearly occur more often than the others (e.g. two with “medium” self-esteem and two with “high” self-esteem). In this situation, a quick categorization cannot be made, so the coded segments should be compared to one another by the coders, who then make a decision about which categorization is more appropriate.
- ☐ No text segments were coded with self-esteem subcodes, meaning the document does not contain any information about this theme. None of the subcodes can be used to categorize this document, and will need to be treated as a “missing” value.

The “Transform into a Categorical Variable” Function

After coding the appropriate text segments, the “Self-esteem” code can be transformed into a categorical variable by right-clicking on the code and selecting the appropriate option in the menu that appears.



Calling up the "Transform into a categorical doc-variable" function in a code's context menu

After this option is selected, MAXQDA performs the following actions:

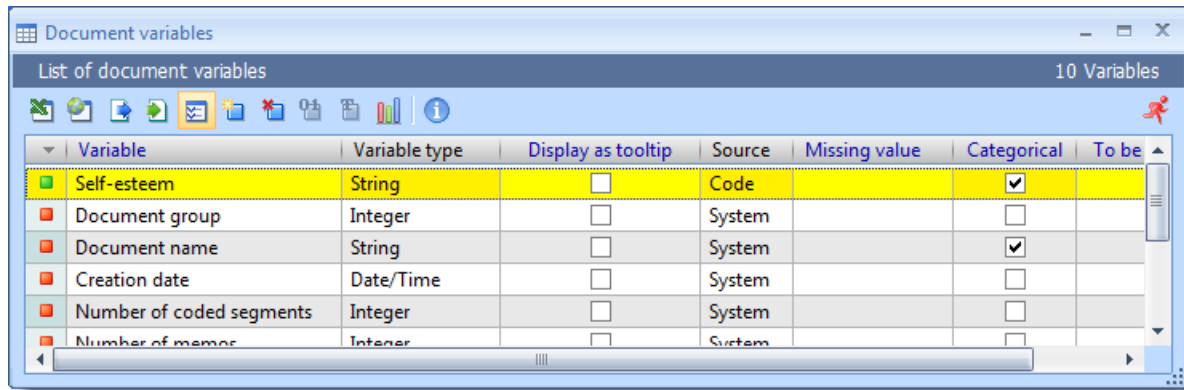
1. A new categorical variable is created in the List of document variables with the name of the code that it was created from (in this case, "Self-esteem").
2. All cases (documents) in the "Document System" are evaluated according to the rules explained above.
 - a. Each case is assigned the value of the subcode that occurs the most often.
 - b. If there are two or more subcodes used the same numbers of time, it is labeled "undefined."
 - c. If none of the subcodes are used at all, no value is assigned. If the table is exported to a statistical software, empty values are usually treated as "missing."

Document name	Education	Gender	Self-esteem
Dora	Highschool	w	low
Faye	University	w	mid
Marten	Highschool	m	high

Variable matrix with the new categorical variable "Self-esteem"

Dynamic Properties of Categorical Variables

In MAXQDA's List of document variables, the categorical variables have a special status. One recognizes them in the list, because they have a green square in the first column and are created from a "Code" as seen in the "Source" column; categorical variables are defined as string variables, and the strings are taken from the "Code System" (in this case "high," "mid" or "low").



The newly-created categorical variable "Self-esteem" in the List of document variables

Categorical variables are dynamic, which means they are updated automatically when new segments are coded in the documents. This is also the case for documents that are imported after the categorical variable has already been created; when one codes this new document, the variable label changes accordingly.

Tip: If a subcode has further subcodes, they will not be included for the evaluation of categorical variable values. Only direct subcodes of the codes that were transformed into a categorical variable are evaluated.

Categorical Variables in the Context of Mixed Methods Functions

Categorical variables lend themselves very well to use with MAXQDA's mixed methods functions. With the **activation by document or code variable function**, for example, one can choose to activate only those documents with a certain variable value. This is helpful for answering research questions such as "How do student teachers with low self-esteem experience their situation in the school system? How do they approach disciplinary issues?"

The **Crosstabs** function offers an aggregated overview of the number of coded segments in certain categories in the "Code System" for each of the three self-esteem variables. The self-esteem characterizations are shown in the columns on the x-axis, and the selected codes are shown in the rows on the y-axis. Using the self-esteem example, the Crosstabs function could count the number of times that student teachers with low self-esteem talk about disciplinary issues in comparison to the number of times student teachers with high self-esteem talk about the issue. One can then easily call up the document segments counted in each cell in the "Retrieved Segments" window.

One can also use the **Quote Matrix** to see a detailed table of the document segments, each column holding those segments that occur in documents with a specific categorical value. In our self-esteem example, one column could hold those statements about a certain topic that come from student teachers with high self-esteem, and the other column could display those statements from teachers with low self-esteem.



The **Typology Table** uses categorical variables similar to the way the Crosstabs function does; a table is created with the categorical variable values in the columns. In this case, however, the variables are analyzed rather than the categories. One could look, for example, what percentage of people with high self-esteem are men and what percentage are women, or whether good grades in teacher certification exams seem to connect in any way to self-esteem, etc.



18 Teamwork: Using MAXQDA as a Team

18.1 Exchanging MAXQDA Projects

People doing qualitative data analysis often do so in a team, which raises the question how MAXQDA allows for teamwork.

Important: MAXQDA is not a multi-user program. Simultaneous use of the same project file at the same time is not possible. Various people cannot make changes to the same file at the same time.

The sort of functionality that is currently available in MAXQDA does not blend with the logic of multi-user software. A typical example of a multi-user program is the kind used by airlines for flight bookings. Such programs only work when one user's ability to change something requires that the other users be given read-only permissions. MAXQDA, though, is set up so that a user can write or change a memo, modify coded segments, etc. at any time. All of these functions would be limited – if not made impossible all together – with a multi-user system. For these reasons, one has to accept that simultaneous work by various team members on the same project file is not possible. MAXQDA does, though, make it easy to separate a project into various files, have team members work on them at the same time, and then later bring them together in one file.

This teamwork is possible in two different forms, depending on how the team members want to work together.

- ❑ Type 1 – Different people work with the same master version. They perform online searches, text retrievals, and other kinds of analysis with this master version. But, they do not perform code and memo procedures simultaneously on the master version.
- ❑ Type 2 – 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..

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 database, but coding and memo procedures in MAXQDA are not possible on more than one PC at a time.

The transfer of MAXQDA projects is very easy: MAXQDA saves all aspects of the project in a MX5 file. If you name a project "ForumAnalysis," it will be saved on your computer as "ForumAnalysis.mx5."

The project file contains all ...	The project file does not contain ...
<input type="checkbox"/> Documents	<input type="checkbox"/> External documents
<input type="checkbox"/> Codes	<input type="checkbox"/> Externally saved geographical references (KML files)
<input type="checkbox"/> Memos	<input type="checkbox"/> Saved search formulas (SEA files = search files)
<input type="checkbox"/> Variables	<input type="checkbox"/> Saved logical activation and Crosstabs formulas (LOA files = LOGical Activation files)
<input type="checkbox"/> Coded segments	<input type="checkbox"/> Files with exported coded segments and memos (MEX files = MAXQDA EXport files)
<input type="checkbox"/> Text links	<input type="checkbox"/> Saved Code Systems in MTR format
<input type="checkbox"/> External links	<input type="checkbox"/> Graphics and photos from MAXMaps diagrams
<input type="checkbox"/> Diagrams made in MAXMaps	<input type="checkbox"/> Dictionaries in MAXDictio

These single MX5 project files can be exchanged between the members of the team – they're usually small enough to send by email.

Tip: If you are planning on sending an MX5 file by email, you can make it even smaller by "zipping" it into a ZIP file. This is recommended also because the file ending might not be recognized by the receiving email program, and might not be accepted.

If you want to set up the project, so that various members of the team can work on it at the same time, it is recommended that you start by importing all documents into a MAXQDA project on one computer, and then sending a copy of that file to everyone in the team. This saves you the work of importing the files on each individual's computer and guarantees that everyone will have the exact same data set.

Sharing Projects that have External or Linked Files

If you have associated audio or video files to documents or if you did not import very large PDF or image files, they will not actually be part of the MX5 project file. Instead they are put in a folder for external files (path listed under **Options** in **Project** drop-down menu). If you want to share these files along with the project file, follow these steps:

1. Send the project (MX5) file.
2. Group all the external files together in a ZIP file by selecting the **Bundle external data files** from the **Project** drop-down menu. A compressed ZIP folder with those files attached to the project will then appear in the same folder as your MX5 file, which you can then send to your fellow researchers.



Procedure for Receiving the Files:

1. Open the MX5 file first that you have received in MAXQDA 11.
2. Select the **Unpack bundled data files** option from the **Project** drop-down menu and choose the ZIP file that was sent with the external files. MAXQDA unpacks these external files and puts them in the appropriate folder, so that they are connected to the newly-opened project.

18.2 Exchanging Coded Segments, Memos, and Variables for Documents and Document Groups

MAXQDA also supports a second type of teamwork, which allows people in the team to work on documents at the same time. It is required that everyone has the same exact data set, meaning that each person has a copy of the project on their own computer.

Tip: Every person must work with an identical form of the texts, meaning that it has the same number of paragraph numbers, etc. The formatting, though – text type and size – does not need to be the same.

The following example is set up for only two different PCs, but the same principle works for as many PCs as you want.

PC 1

Project with documents and codes

PC 2

Project with the same documents
and codes as on PC 1

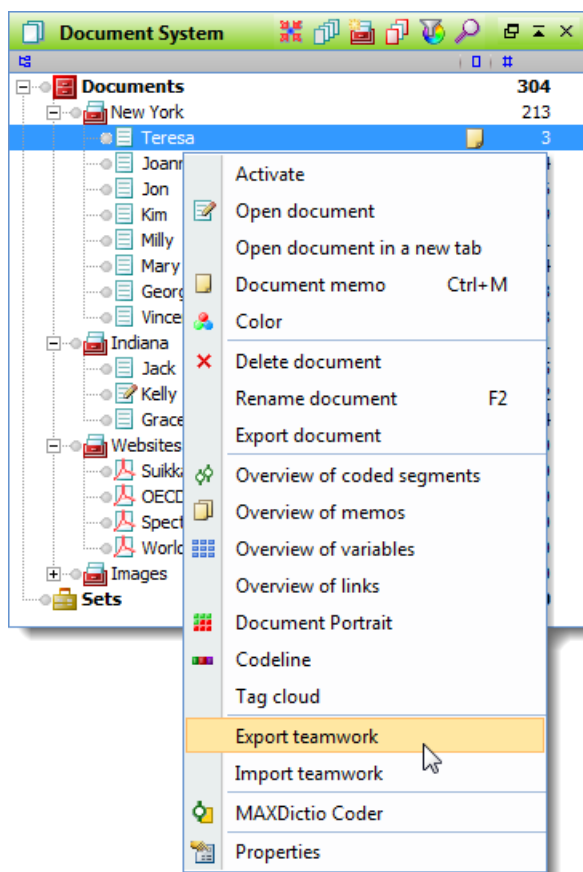
Tip: It doesn't matter if there are more documents on one PC than on the other, but those that are the same must have the exact same structure on both computers.

If "Interview 1" was coded on PC 1, how do you make this work available to someone else in your team? And what if new codes were created during this process? In this case, it doesn't make sense to send the project file, because the work that the person has done on PC 2 would be lost. It is necessary in this case to simply transfer the work done on that single document.

In MAXQDA, you can do this as follows:

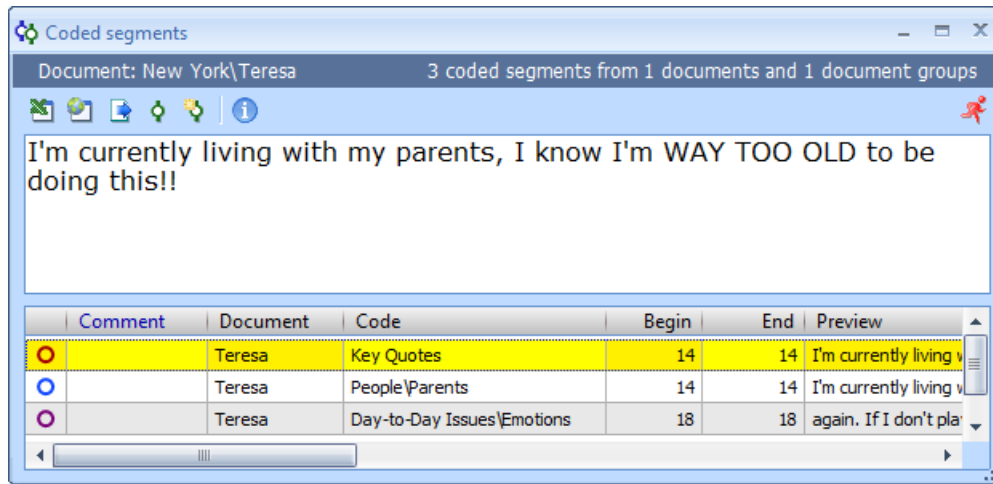
1. The person working on PC 1 right-clicks on the text "Interview 1" in the "Document System" and chooses the option **Teamwork export**.
2. MAXQDA then exports all the information about this document, including coded segments information, memos, variables, and external links as a document with the name "Interview 1."

3. The file has the ending MEX (Max-EXchange format). You will be able to tell later then that this is your document with all the necessary information about your document in MAXQDA.



Choosing to export the information for the document "Teresa"

If you want to document all of the coded segments that you are exporting for the person that will be receiving it, you can do so by right-clicking on the **document** a second time and choosing to see the **Overview of coded segments**. You will then have a list of the segments in the following form:



List of all coded segments in the document "Teresa"

You can then export this table and/or copy it to the Windows clipboard and paste it into a word processing document, so you can print it out.

Note: The "Teamwork export" file contains *all* coded segments, memos, variables, and external links for a document regardless of what you may have activated. This means that it is not possible to export only those segments coded with a certain code. The rule is: all or nothing.

The MEX file can then be sent as an email attachment or transferred with a flash drive. It is recommended here again that you first compress it as a ZIP file, so that the email program is sure to be able to read it.

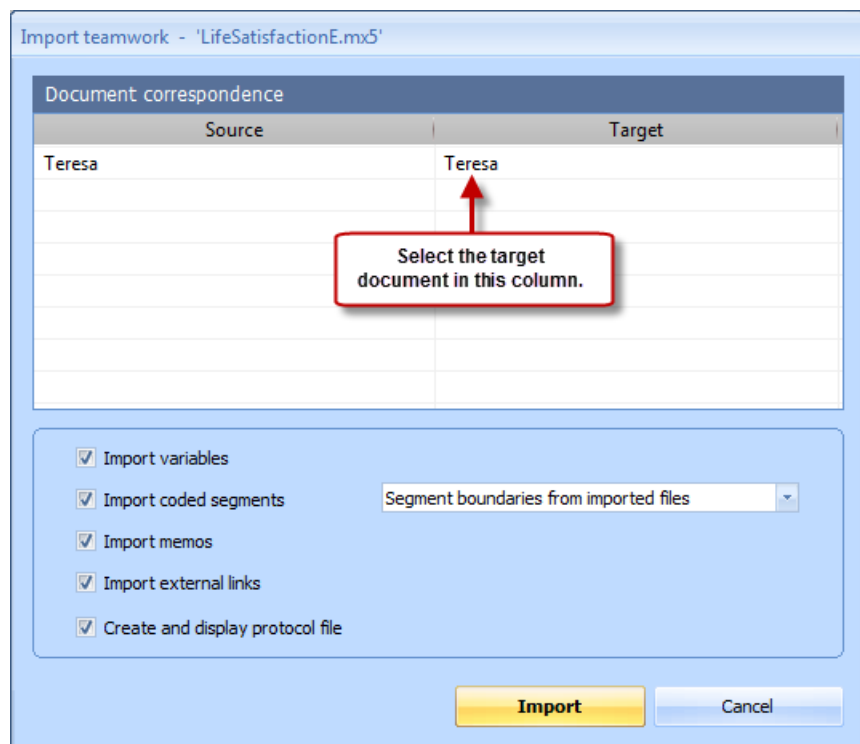
Import the MEX File

The exported file can be imported on any PC where the same document with the same text structure is present in the "Document System." This works in the same way as the "Teamwork export." Right-click on the **document** in the "Document System" on PC2. Then choose **Teamwork import** and choose the appropriate file in the dialog box.

Tip: It is recommended that you back up your project before any import of teamwork. You can do this by choosing the **Backup project** option in the **Project** drop-down menu.

You will then see a dialog field where you can check the source and target documents. If the documents already have the same name, you don't need to change anything, since MAXQDA will already assume this is the document you want to import the MEX file for. If the documents have different names, you'll have to choose the appropriate document in the target column.

You can then decide what exactly you want to import: coded segments, memos, variables, and/or external links. You can also choose to view a protocol after the import, so you can later document exactly what was imported. The standard settings are to import all aspects of the document.



Options for importing teamwork

Important: The document that you are importing the coded segments, memos, and variables to must have the exact same structure as the document that is receiving the information. To make sure you're not importing a completely different document, MAXQDA will ask you once again to confirm the import.

MAXQDA's Import Process for Coded Segments and Memos

MAXQDA proceeds as follows with the imported coded segments:

- ☐ All coded segments existing before the import procedure remain coded.
- ☐ If additional segments in the imported file are coded with a code common to both documents, these segments in the destination file are also coded.
- ☐ Codes and subcodes that were not found in the "Code System" of the destination file will be created.
- ☐ Coded segments that already exist will be ignored to avoid the double-coding of a segment.
- ☐ Comments for coded segments won't be imported, if the segment is coded with the same code already.

Document memos within a document are always imported (exception: memos at the same position with the same title). The memos that are attached to a document or document group in the "Document System" as a document memo or attached to codes in the "Code System" as a code memo are handled differently. Since there can't be more than one of each of these memos, one of the versions of the memo has to be kept, and one has to be

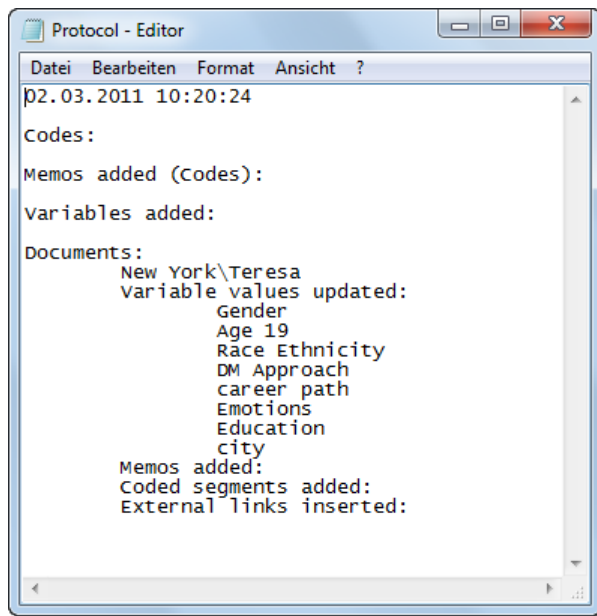


ignored. If a memo already exists in the project, the memos from the imported project will not be included.

Variables are handled slightly differently. Variables that did not previously exist in the project are automatically created, and the variable values are inserted. If the variables already exist, just the values will be updated.

To make sure that the import procedure was carried out correctly, it is recommended that you open the document and check the codes. You could also obtain a list of all coded segments and memos with the “Overview of coded segments” and the “Overview of memos.”

If you checked the box to create a protocol file, it will contain the following information:



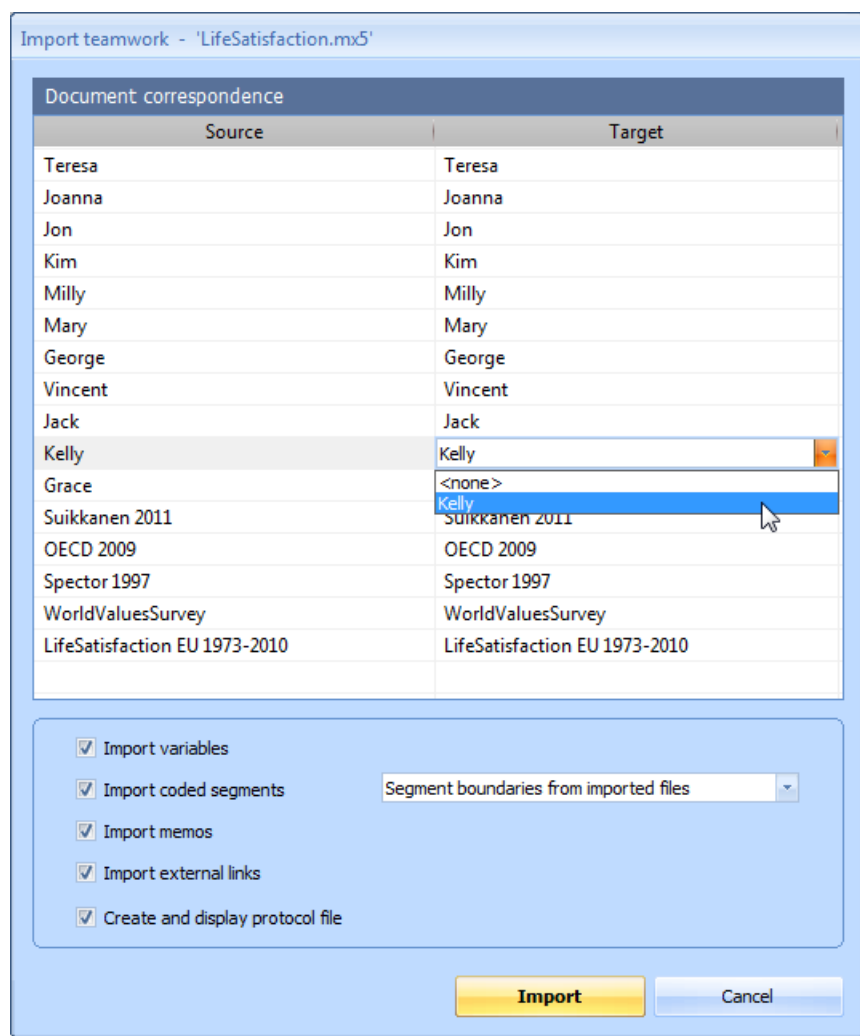
The start of an import teamwork protocol

18.3 Exchanging Coded Segments, Memos, and Variables for Document Groups or the Entire Project

In MAXQDA, you can exchange coded segments, memos, and variables not only for individual documents, but also for whole document groups or even the entire project. You should be careful when using this function, since a lot of things will happen and it is difficult to maintain an overview. It is highly recommended that you backup your project before you start the import procedure.

When exchanging data on the level of document groups, the same rules will apply as with individual documents. To start the import function, right-click on the **document group** and choose **Teamwork import** from the context menu that appears.

As soon as the import procedure has been started, a dialog sheet appears. Here you can link source and target files. MAXQDA presents a list of correspondences, according to document names, that may be modified by the user. Double-clicking the name of the target files opens a list where you can choose between all the document names of the selected document group.



Options when importing teamwork for an entire project

18.4 Merging MAXQDA Projects

Another teamwork feature in MAXQDA is the option to merge two projects. The “Merge projects” function causes all elements of a second project to be added to a project you currently have open. To do this, follow these steps:

1. Open the larger of the two projects you want to merge.
2. Choose **Merge projects** from the **Project** drop-down menu.



3. Select the **project** to be merged from the dialog window that appears.

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

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

- ☐ All the document groups and documents of Project B are inserted in the “Document System” of Project A.
- ☐ All memos of Project B are inserted in the Memo Manager
- ☐ All the codes of the two projects are merged. In the case that a code or subcode does not exist in the “Code System” of Project A, this code is created and inserted in its place in the list.
- ☐ All variable and variable values are merged.


These rules may not seem too complicated. But many questions will arise when you use the function, such as:

- ☐ What happens if a document group with the same name already exists in the opened project? The document group will be imported, too. You may rename or remove text group later.
- ☐ For all variables that exist in Project A but not in Project B, MAXQDA will define new variable values for Project B. Numerical values will be set to zero, string values to blanks.
- ☐ All variables existing in Project B but not in Project A will be created and the variable values for Project A will be set to zero (numeric variables) or blanks (string variables).
- ☐ If variables with the same name but different variable types exist in the two project files, then both variables will be maintained. When the import procedure is complete, two variables will exist in the resulting project file.
- ☐ Summaries are not imported.

19 The Document Type "Table"

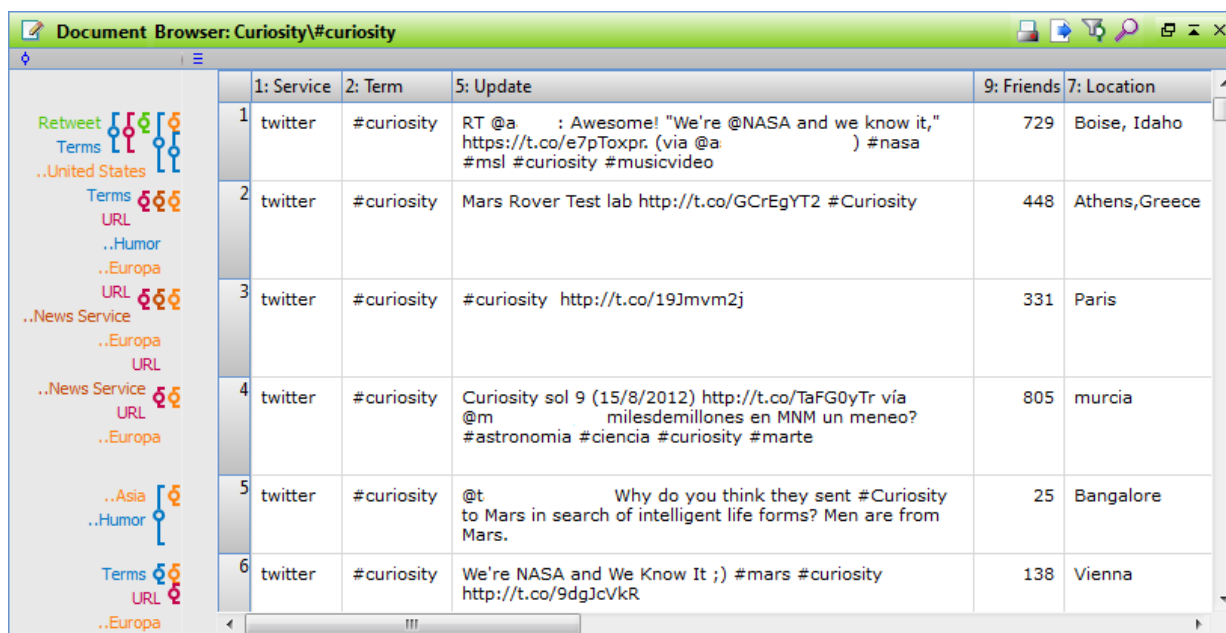
19.1 Importing or Creating Table Documents

It is possible to insert and analyze XLS or XLSX with MAXQDA 11 project, especially to code the data and attach memos. As with other file types (DOC, DOCX, PDF etc.), you can import table documents in the following ways:

- ☐ Drag & Drop the file from Windows Explorer into the "Document System,"
- ☐ with the menu function **Documents > Import Document**,
- ☐ with the **Import Document(s)**  button in the "Document System."


What happens when a table document is inserted into a MAXQDA project?

- ☐ The first worksheet in the Excel workbook will be imported.
- ☐ Hidden columns in Excel will also be imported.
- ☐ The columns are numbered according to their order, whereby the contents of the first row will be used as the column header.
- ☐ The row order will remain the same when imported.
- ☐ The font will be set to Verdana, size 8.



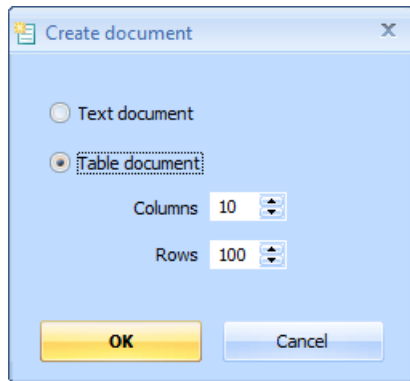
	1: Service	2: Term	5: Update	9: Friends	7: Location
1	twitter	#curiosity	RT @a : Awesome! "We're @NASA and we know it," https://t.co/e7pToxpr. (via @a) #nasa #msl #curiosity #musicvideo	729	Boise, Idaho
2	twitter	#curiosity	Mars Rover Test lab http://t.co/GCrEgYT2 #Curiosity	448	Athens, Greece
3	twitter	#curiosity	#curiosity http://t.co/19Jmvm2j	331	Paris
4	twitter	#curiosity	Curiosity sol 9 (15/8/2012) http://t.co/TaFG0yTr via @m milesdemillones en MNM un meneo? #astronomia #ciencia #curiosity #marte	805	murcia
5	twitter	#curiosity	@t Why do you think they sent #Curiosity to Mars in search of intelligent life forms? Men are from Mars.	25	Bangalore
6	twitter	#curiosity	We're NASA and We Know It ;) #mars #curiosity http://t.co/9dgJcVkr	138	Vienna

Imported table document in the "Document Browser"

Table documents are indicated in the "Document System" with a  symbol.



From the menu function **Documents > Create document**, you can create a new table directly in MAXQDA and select the number of columns and rows.

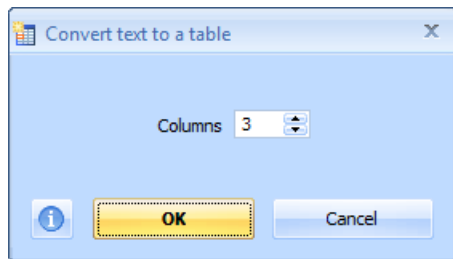


Select the number of columns and rows when creating a new table document

Note: Once a table is created, new columns cannot be added at a later time.


19.2 Converting Text into a Table

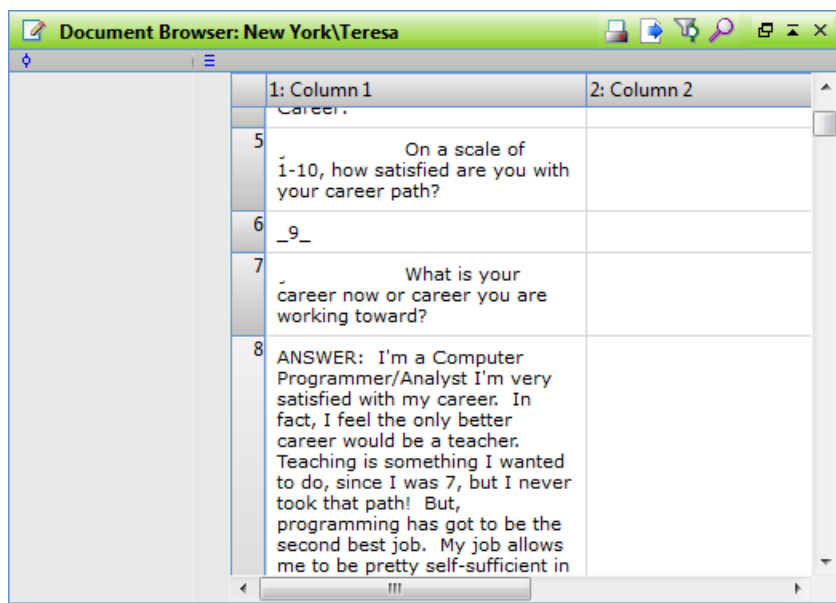
It is possible to automatically convert a text document into a table document. To do so, double-click on the selected text document in the “Document System” to open it, then choose **Documents > Convert text to a table** from the menu. A menu will appear in which you can select the number of columns.



Select the number of columns for the table

Note: The original text remains after the conversion

A new table document will appear in the “Document System,” which can be recognized by the  symbol, and has the same name as the original document. Each paragraph of the original text is placed in an individual row of the table. If the table contains more than one column, the text will be placed only in the first column.



	1: Column 1	2: Column 2
	Career.	
5	On a scale of 1-10, how satisfied are you with your career path?	
6	_9_	
7	What is your career now or career you are working toward?	
8	ANSWER: I'm a Computer Programmer/Analyst I'm very satisfied with my career. In fact, I feel the only better career would be a teacher. Teaching is something I wanted to do, since I was 7, but I never took that path! But, programming has got to be the second best job. My job allows me to be pretty self-sufficient in	

The original text is placed only in the first column.

As shown in this image, original text can be easily paraphrased or summarized using this function. By switching into Edit Mode you can fill the empty columns of the new table with the corresponding summaries.

19.3 The Table View in the “Document Browser”

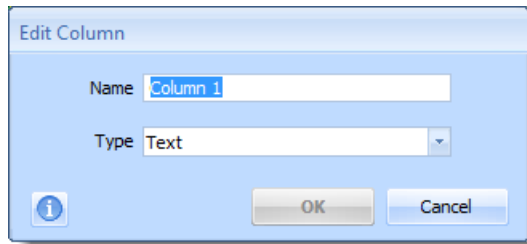
Table documents in MAXQDA will be automatically formatted in “Verdana” font, size 8. It is not possible to modify the format.

You can zoom in to the table from the “Document navigation” toolbar. The font will appear accordingly larger or smaller. The height of the rows will be automatically set to the height of the largest cell.

Notes on the Columns

Columns will be numbered according to their order in the Excel table when imported. The column number appears at the beginning of each column header and cannot be modified after the import. The column numbers for coded segments, memos and references are assigned as page numbers, so there is no risk of ambiguity.

When the table document is imported, the first row of the imported document will become the column header. This column header can be modified by right-clicking on the column and selecting **Edit**:



Modify column header

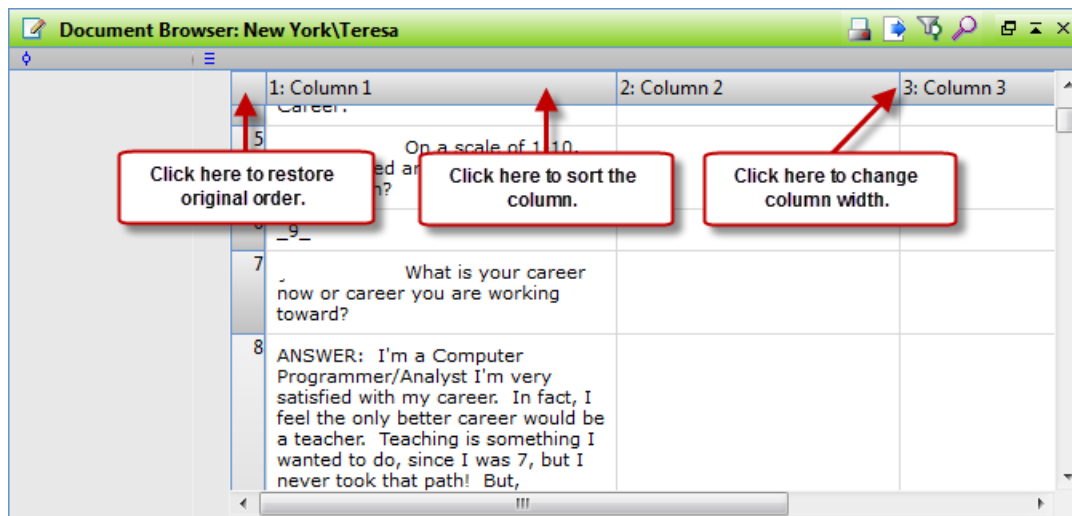
When you import a table each column will be assigned a type automatically:

- ☐ Text
- ☐ Numeric
- ☐ Date/Time

To change a column type open the drop-down menu “Type.”

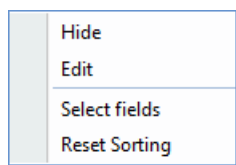
Note: It is not possible to to modify the column type if the column contains coded segments.

The column widths and column positions can be modified using Drag & Drop. Like overview tables, table documents in MAXQDA can be sorted by clicking the column header. The original order can always be restored by right-clicking on the column header and selecting **Reset sorting**. Alternatively, you can click on the empty column header just above the row number.



Modify table view

You can access the following options by right-clicking on the column header:



Context menu of a column header

Hide – hides the column.

Edit – allows the modification of column name and column type.

Select fields – opens a window in which the columns to be displayed can be selected.


Reset Sorting – restores original order after import.

Notes on Table Rows

The row numbers are fixed when the table is imported into MAXQDA, and cannot be modified.

A row in the table corresponds to exactly one paragraph. Within a cell, there is no differentiation between paragraphs.

19.4 Edit Table Documents

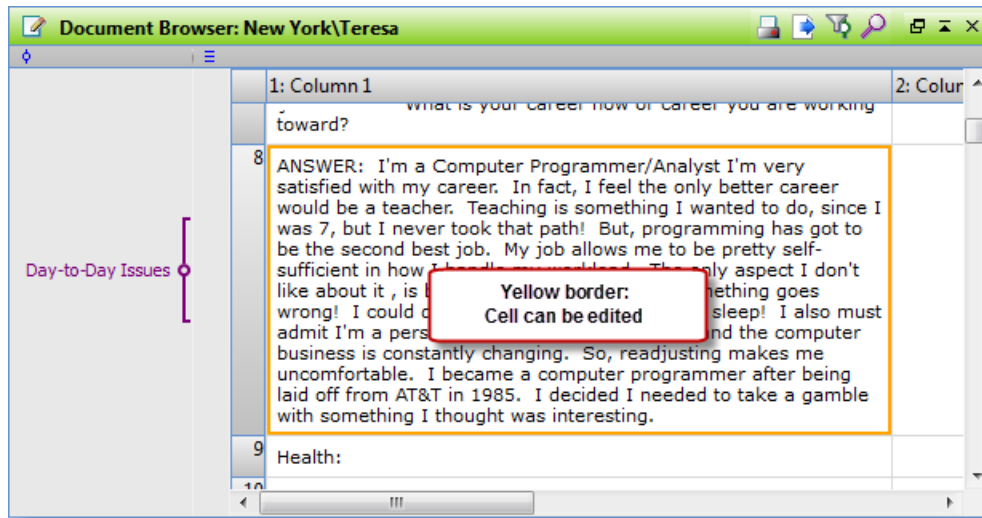
The contents of individual cells can be modified. In order to do so, click on the **Edit mode on/off**  button in the “Code” toolbar.

Tip: To insert a paragraph within a cell, hold down the Alt key and press Return.

The Windows clipboard can also be used with table documents. To copy the contents of an activated cell onto the clipboard, right-click on the cell or press **Ctrl+C**. In Edit mode, you can paste the contents from the clipboard into an activated cell by right-clicking the mouse or by pressing **Ctrl+V**.

19.5 Coding Table Documents

Any text segment of any cell can be coded. First, double-click on the cell in order to select the contents. The cell will then be outlined in yellow, and you can mark a text segment. All of the usual MAXQDA coding options, including color-coding and coding with emoticons, are now available. It is not possible to code across multiple cells.



Coded text in a cell

Note: When you hide a column, the corresponding coding stripe in the “Document Browser” will also be hidden.

19.6 Notes on Retrieval Functions in Table Documents

The retrieval options are identical to those for text documents. For example, overlap will be handled in the same way as it is with normal text. The retrieval functions also include hidden columns and are based on the current configuration of the table. Retrieval functions for a single row correspond to those for a single paragraph.

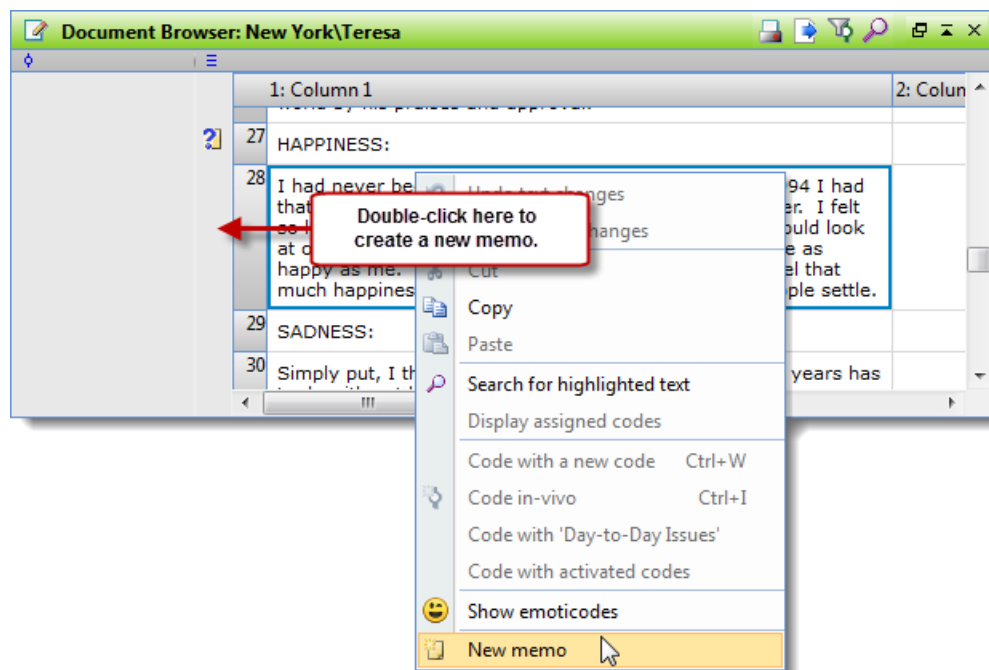
The Near function in the Code Matrix Browser and for complex retrivals applies to columns in table documents. This means that only the vertical proximity of two codes, and not the horizontal or diagonal proximity, will be taken into account.

Click on the source data in the “Retrieved Segments” to indicate the coded text in the “Document Browser” and display the corresponding column.

19.7 Memos in Table Documents

As with all documents in MAXQDA, you can assign memos to table documents. Memos can be assigned to individual cells. There are two ways to assign a memo to a cell:

1. Double-click in the grey memo field next to the table, or
2. Right-click on a cell or marked text segment within a cell and select **New Memo**.



Inserting memos into a table document

When you click on a menu symbol, MAXQDA will indicate to which cell this memo is assigned.

Note: When a column is hidden, the memos assigned to the cells in this column will also be hidden.

19.8 Table Documents and Visual Tools

In principle, hidden columns in table documents will be taken into account when using Visual Tools.

Code Matrix Browser functions as with any other type of document, as only the number of coded segments for a particular code will be analyzed.

Code Relations Browser functions as with overlapping innormal text. Overlap can only occur within a particular cell. The "Near" function will search only for coded segments in the same column.

Crosstabs functions as with any other type of document, as only the number of coded segments for a particular code will be analyzed.


Codeline Each row represents a paragraph in the Codeline - the column structure is ignored in this case. Hidden columns will be taken into account. Paragraphs will be sorted in their original order.



Document Comparison Chart As with the Codeline, each row in the table represents a paragraph - the column structure is ignored. Hidden columns will be taken into account. Paragraphs will be sorted in their original order.


Document Portrait This tool operates differently than with regular documents. Columns will be more or less ignored; cells will be processed from left to right, then top to bottom. A one-dimensional structure is then created, which is displayed as usual in the Document Portrait.

19.9 Printing and Exporting Table Documents

Table documents can be printed like other documents. Click on the **Print document**  button in the "Document Browser" or select **Project > Print > Displayed Document** from the menu.

MAXQDA will display codes and memos next to the text upon demand.

Note: Only the first columns of the currently displayed table will be printed, subject to space on the page. Only the codes and memos for the displayed columns will be displayed.

Table documents can be exported as XLS/X files. Click the **Export displayed document**  button in the "Document Browser" or select **Project > Reports & export > Document Browser** from the menu. Alternatively, you can right-click on the table document in the "Document System" and select **Export document**.

20 Transcribing and Coding Audio and Video Files

20.1 General Information about the Analysis of Audio and Video Files

MAXQDA 11 allows you to code audio and video files directly without having to provide a transcript. The coded segments are treated like any other segments in MAXQDA. You can retrieve, comment and assign a weight to these segments in the same way as with other segments. Thanks to this improvement of MAXQDA, you are now able to analyze a wide range of different types of data – text, tables, PDFs, audio and video files – all within the same program.

MAXQDA 11 also has improved transcription functions for audio and video files. Now, you can set a rewind interval and adjust the replay speed and volume. You can also import your f4 transcripts as usual. MAXQDA will automatically detect timestamps. You can use these timestamps to link your transcripts to the original media files and replay them synchronously.

20.2 The “Media player” Toolbar

To transcribe or code an audio or video file with MAXQDA, you need to work with the “Media player” toolbar. This toolbar offers various functions such as playing media files. In order to work with it, you should become familiar with this toolbar and understand how it works.

To open this toolbar, go to the toolbars drop-down menu and select **Media player**.



“Media player” toolbar

The symbols in the toolbar give you access to the following functions (from left to right):



Media Player: switch on/off – turns on the media player and loads the media file into the Multimedia Browser. You can compare this to turning on a CD player and inserting a CD.



List timestamps – opens/closes the timestamp table of the current file.



Sync mode – turns on/off sync mode, which causes the text to follow the media file, comparable to a teleprompter.



Multimedia Browser – turns on the Multimedia Browser, where you can play videos and code media files.



Control Panel – opens the Control Panel, where you can adjust the playback options for audio and video files.



New timestamp F8 – inserts a timestamp in a transcript or a media file.



Prev F3 – rewinds the media file to the previous timestamp.



Stop – stops playback and jumps back to the beginning of the file.



Play/Pause F4 – pauses playback at the current position and resumes playback at that same position. You can set a rewind interval to resume playback from an earlier position.



Next F5 – fast forwards the media file to the next timestamp.

On the right next to these icons, you see the time elapsed and total time of the media file. You can jump easily to a certain position using the slider on the right.

20.3 Inserting Audio and Video Files

Just as before, audio and video files are not imported into MAXQDA but are saved in the MAXQDA Externals data files folder and are linked with a text document. Documents with an assigned media file are marked with a symbol in the “Document System:” a musical note 🎵 for audio files and a film strip 🎬 for video files.

There are different ways of making audio and video files available for use in MAXQDA:

1. You can either select **Import document(s)** in the Documents drop-down menu,
2. Or right-click on the root directory in the “Document System” or a document group and select **Import document(s)**,
3. Or click on the button **Import Document(s)** 📁 in the “Document System.”

A dialog window will appear which shows all files that MAXQDA can read. Select a media file and click **Open**.

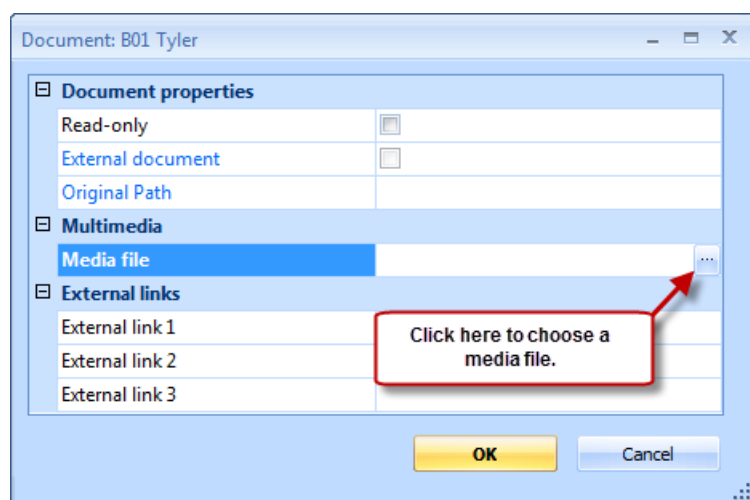
Tip: You can also easily insert audio and video files from Windows Explorer into the “Document System” via Drag & Drop.

This creates a new document named like the media file; this document is linked to the media file. The media file itself is saved in the MAXQDA Externals data files folder which you can set in the main menu by selecting **Project > Options**. If a file with the same name already exists, MAXQDA will ask you if you want to replace the existing file.

Note: When inserting a new file, MAXQDA shows a standard set of the most common audio and video files (MP3, WAV, WMA, MP4, MPG, AVI, FLV, WMV).

You can, however, assign any media file to a document if the correspondent codec is installed on your computer. If the codec is installed, Windows Media Player will be able to read the file. For further information, please follow this [link](#).

You can also assign a media file subsequently to an existing document. To do so, right-click on the document in the “Document System” and select **Properties**. Here, you can insert or change a link to a media file.




Assigning an audio or video file subsequently to an existing document

Note: When inserting or assigning a media file subsequently, MAXQDA creates a file with the suffix DAT in the location where the media file is saved. This file has the same name as the media file. MAXQDA needs this file to display the media file rapidly which is why DAT files should not be deleted.

Playing Audio and Video Files in MAXQDA

To play a media file in MAXQDA:




1. Double-click on the document containing the media file in the “Document System”. This turns on the media player and loads the file for playback. If the “Media player” toolbar is not already visible, it will open after double-clicking. If you want to play a video, the Multimedia Browser window will appear.
2. Click on the icon **Play/Pause**  on the “Media player” toolbar or press the **F4** key.

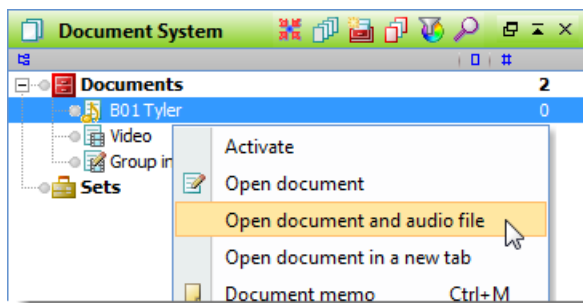


20.4 Coding Audio and Video Files in the Multimedia Browser

The Multimedia Browser

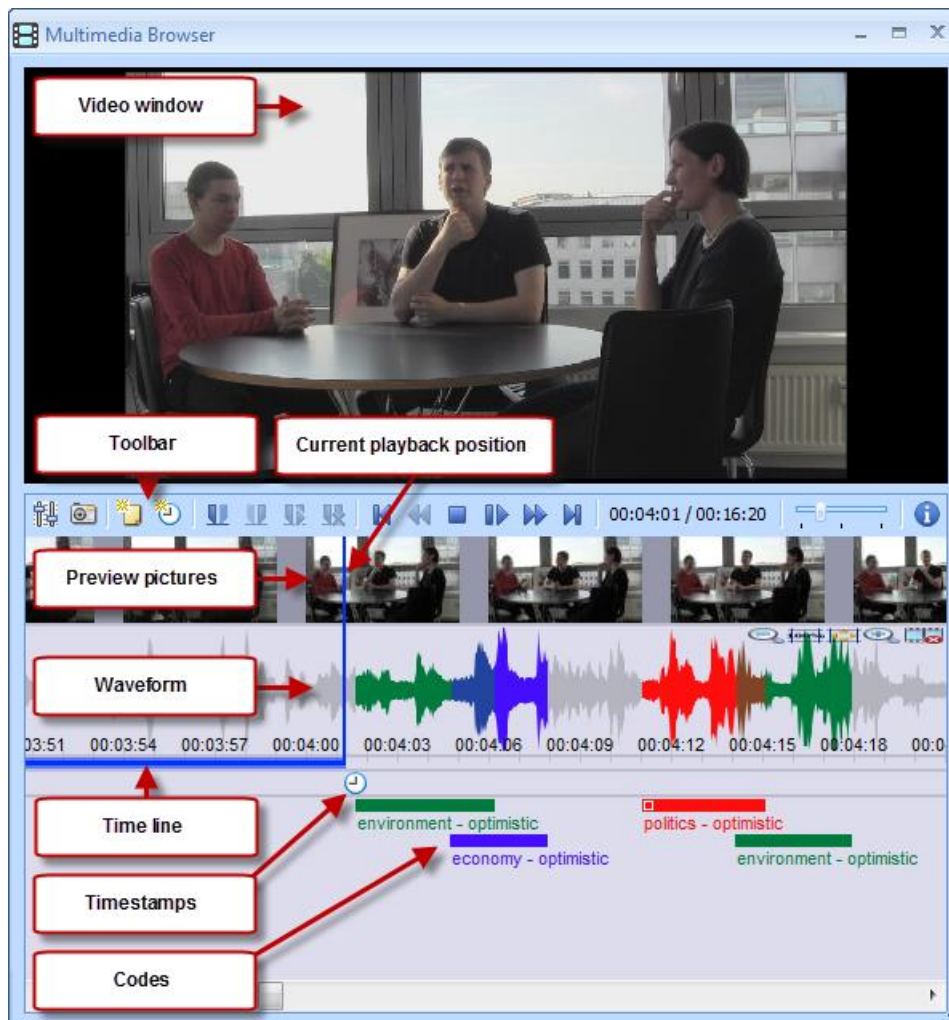
Using the Multimedia Browser you can easily play and code audio and video files. To open the Multimedia Browser, there are various options:

- ☐ Click the icon **Multimedia Browser**  on the “Media player” toolbar. To do this, the Media Player has to be turned on by clicking the icon  (you can only do this when a document with a media file assigned to it is displayed in the “Document Browser”).
- ☐ Double-click on a document with a video file assigned to it. These documents are marked with the symbol . This opens the document as well as the video file in the Multimedia Browser. If the “Media player” toolbar is not visible already, it will open up automatically.
- ☐ Select **Open document and audio file** in the context menu of a document that has an audio file assigned to it. If the “Media player” toolbar is not visible already, it will open now.



Opening audio files using the context menu in the “Document System”

The following screenshot shows the structure of the Multimedia Browser:



The Multimedia Browser window

For video files, the Multimedia Browser consists of five panels:

- ☐ The upper panel shows the video.
- ☐ Underneath, there is a toolbar containing the functions to adjust the view and playback and the functions for coding. Here, you can also see the current playback position and the total time of the media file.
- ☐ Beneath the toolbar, preview pictures are shown.
- ☐ Underneath, you can see the waveform of sound of the media file, and below this, there is a time line where you can see the current playback position precise to the second.
- ☐ Under the time line there is a bar for the timestamps.
- ☐ At the very bottom is an area where the coded segments are visualized by bars.

For audio files, the video window and preview pictures are not shown.



The blue vertical line and the blue bar underneath the time line indicate the current playback position.

The following functions are available on the toolbar:



Control Panel – opens the window with playback options



Snapshot – saves a screenshot of the current video picture



New memo – creates a new memo in the current playback position



New timestamp – inserts a timestamp in the current playback position.

Note: In order to insert a timestamp directly into an audio or video file, the text document associated with this file must contain at least one character because timestamps refer to both the transcript and the media file.



Set clip start – sets the beginning of a clip segment at the current playback position



Set clip end – sets the end of a clip segment at the current playback position



Play clip – plays the segment selected on the waveform



Remove clip – removes current clip marks from the waveform



Go to beginning – jumps back to the beginning



Prev – rewinds the media file to the previous timestamp.



Stop – stops playback and jumps back to the beginning



Play/Pause – starts/pauses playback



Next – fast forwards the media file to the next timestamp.



Go to end – jumps to the end



Slider – helps you jump to a certain position



Info – opens Help

On the far right of the waveform, there are other icons that you can use to adjust the zoom for the waveform and for the preview pictures of videos. The icons are hidden in order to not cover the waveform. They appear as soon as you move the cursor over this area.



zooms out of the waveform, reduces the number of preview pictures for videos.



zooms the view to 100%. This view is configured by default and is usually ideal for coding.



shows the complete media file in the Multimedia Browser; this gives you an overview of the waveform of the complete file. This view is usually not suitable for coding.



zooms into the waveform, increases the number of preview pictures for videos. This makes it easier to navigate to single pictures and words.

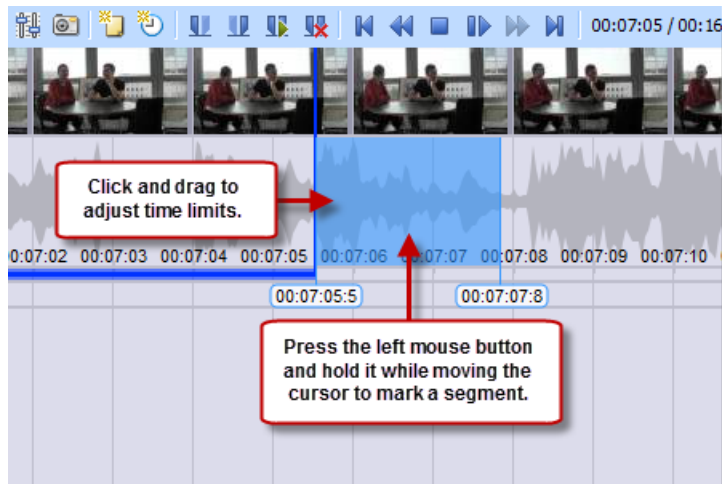


hides the preview pictures bar.




Coding in the Multimedia Browser

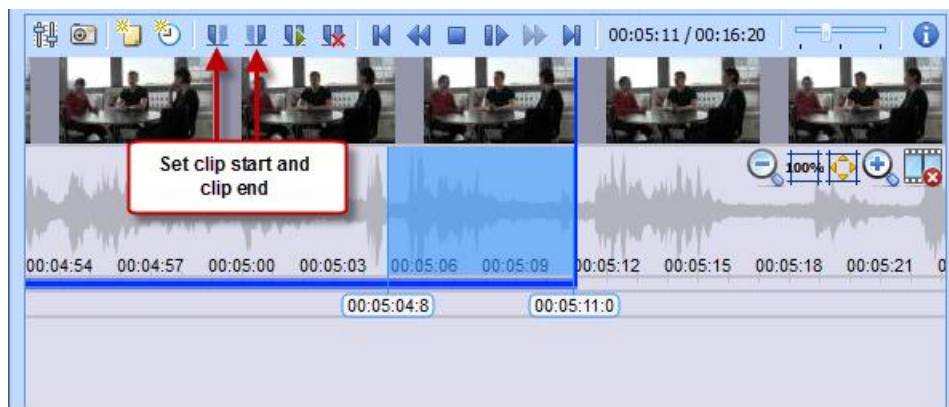
You can code audio and video files in the same way as texts in MAXQDA. You start by marking a segment of the waveform (a so called “clip”). Typically, you will want to set the beginning and end of a segment in a media file precisely to the split second as the scene and content can change completely from one moment to the other. For this reason, MAXQDA offers a number of functions that allow you to mark an audio or video clip:

- ☐ To roughly mark a segment, keep the left mouse button pressed and select the segment by dragging the cursor over the waveform. The time limits are displayed underneath the beginning and end marks.
- ☐ You can easily alter the time limits of the clip by moving the whole blue-marked segment or by clicking and dragging the outer borders of the segment in the waveform.
- ☐ To play the marked clip, click the icon **Play clip** or press the **F11** key.



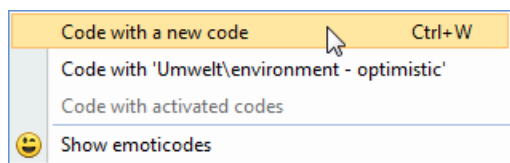
Marking a clip

- ☐ You will usually play a media file and then pause exactly at a position where you want to set a new coding. To do this, use the button **Play/Pause**  or the **F4** key.
- ☐ When the playhead is at the designated position, click the button **Set clip start**  or press the **F9** key.
- ☐ Now resume playback and pause at the position where you want to end the coding. Click the button **Set clip end**  or press the **F10** key.



Setting the clip limits at the current playback position

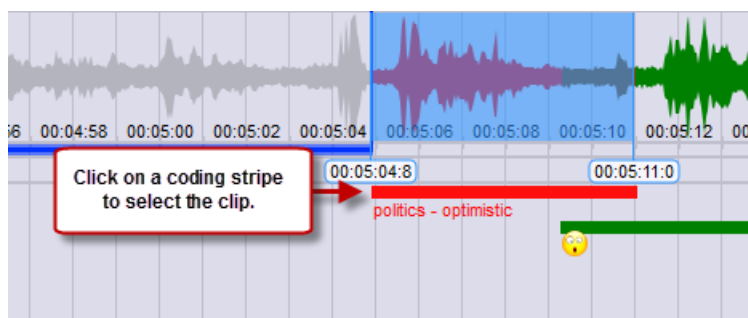
You can now code the selected segments as usual, for example by (a) dragging and dropping the marks on to a code, (b) clicking on an emoticon, or (c) by clicking a color code. Right-clicking on a marked segment opens a context menu that contains three options that are relevant for coding:



Context menu on a marked clip

When coding is completed, it will be indicated by a horizontal coding stripe in the Multimedia Browser. Below it, on the left, the code name is displayed. The coding will also be indicated by the color of the waveform (green for standard codes, other colors for color codes). If various codes are layered on top of each other, the color of the waveform is a mix of the colors. Coded segments with an emoticon are indicated by the Emoticon next to the coding stripe.

Clicking on a coding stripe selects the coded segment on the waveform. Double-clicking plays the clip.



Visualization of codings in the "Multimedia Browser"

Right-clicking on a coding stripe opens a context menu containing the usual options:

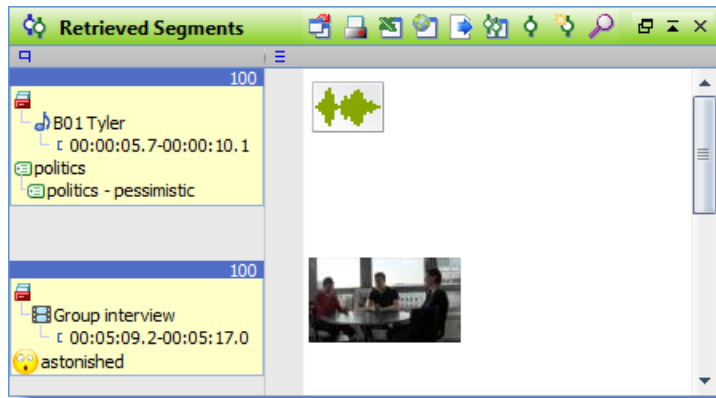
- ☐ Modify weight
- ☐ Edit comment
- ☐ Delete

Coded segments which have a comment are marked with a white square on the left hand side of the coding stripe.

Audio and Video Clips in the "Retrieved Segments"

In the "Retrieved Segments" window, video clips are shown using the first picture of the video clip. For audio clips, a picture of a waveform is shown.


The time indication tells you when an audio or video clip starts and ends.

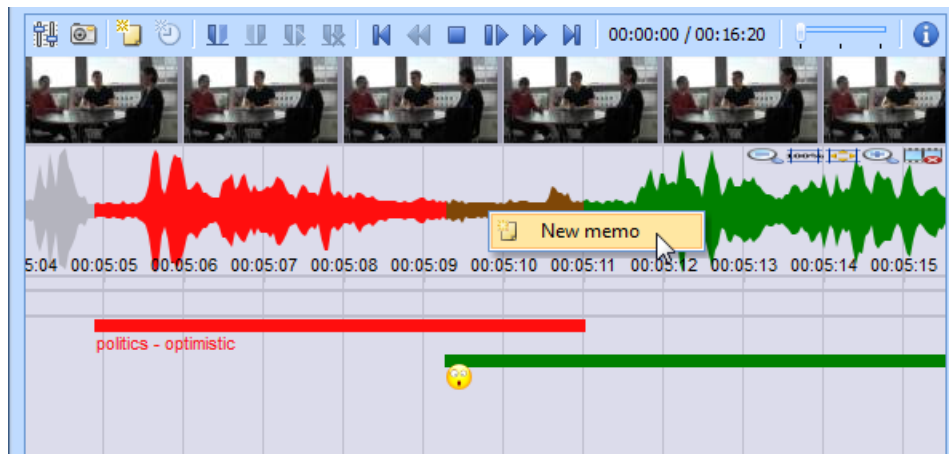


Audio and video clips in the “Retrieved Segments”

Attaching Memos to Audio and Video Clips

You can attach memos for notes to any playback position. To attach a new memo,

- ☐ Right-click a position of the waveform
- ☐ Or click the button **New memo**  in the Multimedia Browser toolbar.



Creating memos

20.5 Notes on Synchronizing Transcripts and Media Files

You can use timestamps – which are visualized similar to the way memos and coding stripes are seen in the “Document Browser” – to synchronize your transcripts with the original audio or video files. These audio and video files can even be played in MAQDA in the integrated media player. A timestamp table also lets you insert comments for each section of your transcript represented by that timestamp, so you can later search for these comments and go directly to that section of the text or audio and video file.

There are three different ways to work with text and audio and video files:

Option A

First you do the text transcription with whatever transcription software you want to use, import the transcription as a document in MAXQDA, and then link the document to the original audio/video file. At this point, there aren't any connections between specific segments of the transcript and parts of the external file. These connections have to be created with timestamps within MAXQDA.

Option B

The first step in this variation is to transcribe the file with the professional software f4 (<http://www.audiotranskription.de/english/home>), in which you can create timestamps as you transcribe. You can then export the transcript in RTF format and import it into MAXQDA, and the timestamps are imported along with the text. You will then already have the connection between your text and the audio or video file.

Option C

In this variation, you transcribe the file within MAXQDA.

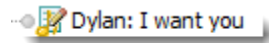
The second variation is the most efficient, because you have the advantage of a professional transcription software, and – as opposed to in the first variation – you don't have to create the timestamps within MAXQDA. The option to transcribe audio and video files directly in MAXQDA doesn't have as many features as a program that is designed to only do the specific task of transcription. It is, however, possible since MAXQDA 10.

20.6 Importing Transcripts without Timestamps and Subsequently Inserting Timestamps (Option A)


This variation will be explained with a song as an example. Let's say we wanted to have a synchronized connection between the text and the audio for the song "I Want You" by Bob Dylan. To save us the time of doing the transcription, we can get the text from Dylan's website. We can then either copy it and paste it into a document in MAXQDA, or we could paste the text into an RTF or DOC/X file and import that file into MAXQDA. For this example, we'll name the document "Dylan: I want you." Once the text is in MAXQDA, we need to create the connection to the audio file.

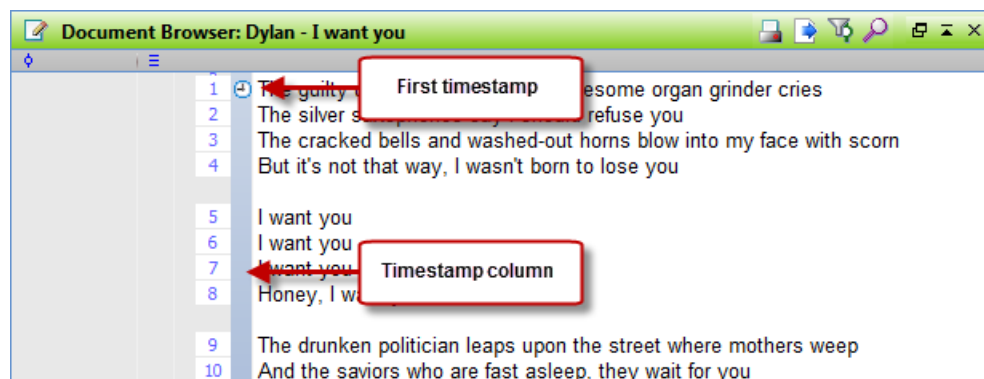
- ☐ Right-click on the document "Dylan: I want you," and select **Properties** from the context menu that appears.
- ☐ Click in the field next to the **Media file** label in the **Multimedia** section. You will see a button with "..." on it just to the right of the field. Clicking on that button will open up a window, so you can find the audio or video file (in this case, the Bob Dylan song). Click **Open**.
- ☐ Close the **Properties** window.

The MAXQDA document with the Dylan text is now linked to the audio file, but the audio file wasn't actually imported as part of the MAXQDA project. You will now see that the symbol next to the "Dylan: I want you" document has changed. This is the symbol for a document linked to a media file:



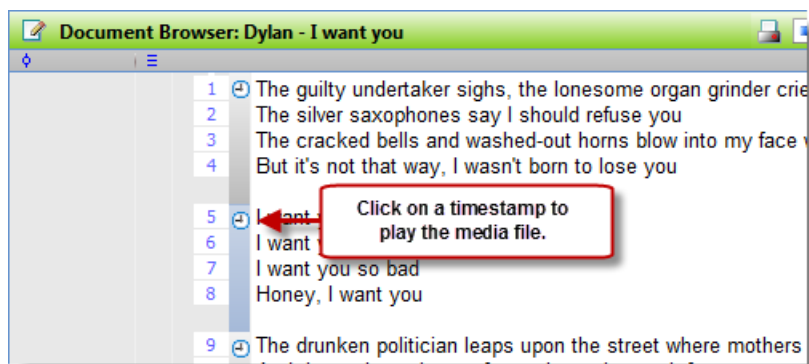
Insert timestamps into a MAXQDA transcript

Double-clicking on this document opens it in the "Document Browser" (see below). A new column has been inserted between the text and the paragraph numbers, which will show your timestamps. The document only has one timestamp at this point, representing the very beginning of the song, since we haven't added any yet. To play the song with the internal media player, you need to activate the "Media player" toolbar from the **Toolbars** drop-down menu. You can then click on the **Media Player switch on/off**  button in this toolbar to activate the media file.



Imported transcript with media file connection

Next, we would want to put the cursor at the beginning of the actual song text, right before "The guilty undertaker ..." and start playback of the song. We can do this by clicking on the **Play** button or using the **F4** key on the keyboard. We would then let the song go until right before the singing begins and insert a timestamp by clicking on the **New timestamp** button or by pressing the **F8** key. We want to do this same thing for the beginning of each verse. We would then see a timestamp symbol next to the first line of each verse.



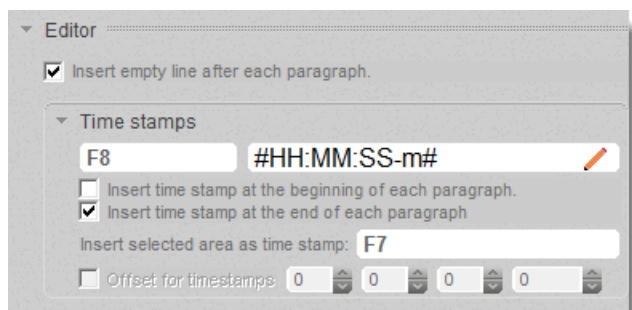
Timestamp in front of the verses

We can now use the synchronized text and audio together. By clicking on any of the **timestamps**, we will hear the song played from that point. If you do this with an interview transcript, you can in a similar way get back to various sections that you may want to hear again for tone or emphasis.

If you turn on the **Sync mode** in the toolbar and click on the **timestamp** next to the first verse, the text follows the song, meaning the section of text being sung will be highlighted, similar to the way karaoke works. You can then follow along with the song text as you hear it.

20.7 Importing f4 Transcripts with Timestamps (Option B)

When transcribing with f4, it is recommended that you set up a standard structure of timestamps. The easiest way to do this is to set the program to automatically insert a timestamp every time you hit the Enter/Return key. It is also recommended that you take advantage of the shortcut keys to mark which sections are being spoken by different people (e.g. in group discussions). This is accomplished selecting **Insert time stamp at the end of each paragraph** in f4.




f4 option for automatically inserting time stamps

Important: MAXQDA can interpret timestamps in a transcript only when they appear at the end of a paragraph.



Furthermore, when transcribing, it is useful to make use of f4 keyboard shortcuts in order to differentiate between speakers, for example in group discussions or interviews.



To import the transcript including timestamps and media files into MAXQDA, follow these steps:

1. Save the transcript in f4 as a RTF file. Ensure that the option **Save with time stamps** is selected. Timestamps will then remain in the text, marked with a “#” symbol at the beginning and end.
2. Insert the file into the “Document System” in MAXQDA by selecting **Documents > Import document(s)**, or with the **Import document(s)**  button in the “Document System.”
3. When the file is imported, MAXQDA automatically recognizes that it contains timestamps and prompts you to select the appropriate media file. Choose the appropriate file from the dialog window and confirm your selection by clicking **OK**.
4. When the file is imported, MAXQDA formats and inserts timestamps into the timestamps table, removing them from the text for improved readability.

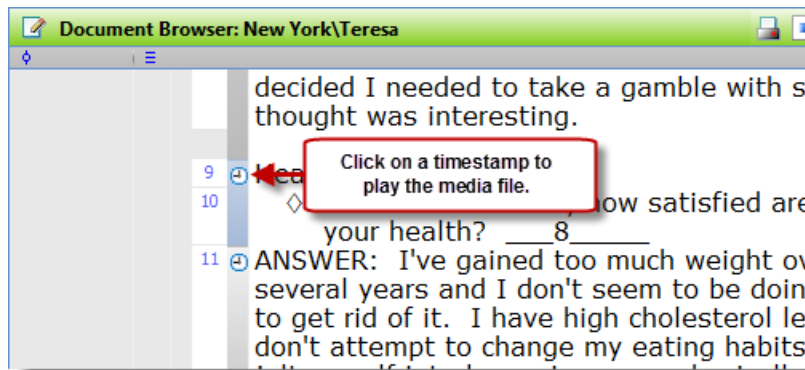
Important Note 1: MAXQDA allows only one timestamp per paragraph. If a paragraph contains several timestamps, new paragraphs will automatically be created.

Important Note 2: The timestamps are only imported when a media file is selected. Subsequent automatic linking of transcripts with media is not possible!

5. Open the imported document by double-clicking it in the “Document System.”


Note: Documents with associated media files are marked with special symbols:  for audio files and  for video files.

When imported, timestamps from text, audio and video files will appear in the corresponding column before the text in the “Document Browser.”



Timestamp display in MAXQDA

The audio or video file will not be loaded automatically when you open MAXQDA, but only when it is activated in the “Media player” toolbar – the “Media player” toolbar must there-

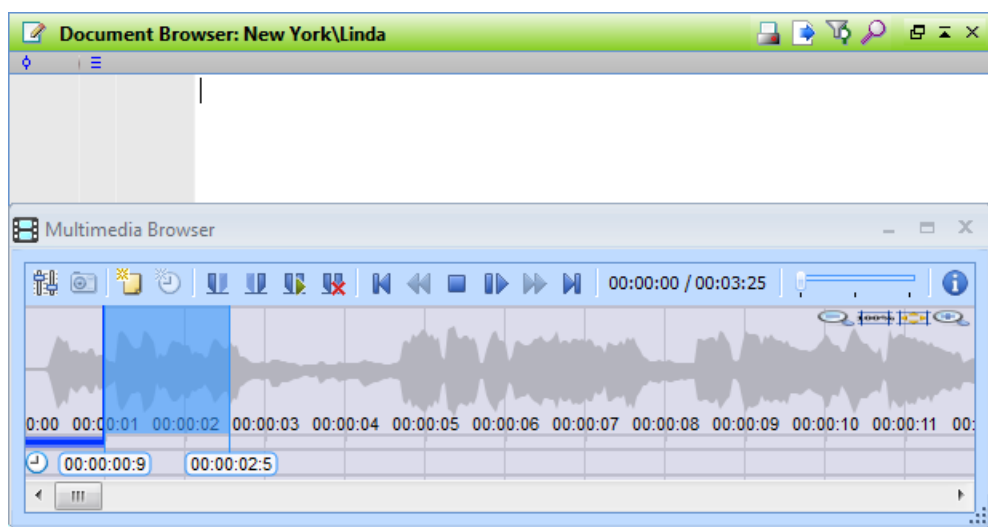
fore be displayed first (via the **Toolbars** drop-down menu). To load the media file click on the **Media Player: switch on/off**  button.

20.8 Transcribing Directly in MAXQDA (Option C)

It is also possible to transcribe audio and video files directly in MAXQDA. To do so:

1. Right-click on a **document group** or the **Documents icon** in the “Document System” and select **Transcribe audio/video** from the context menu that appears.
2. You will then see a dialog field, in which you can select the file to be transcribed.

MAXQDA automatically creates an empty document named like the media file, connects it with the media file and opens it in the Edit mode in the “Document Browser.” You can now play this file in MAXQDA’s media player and start the transcription in the empty document. The waveform of the media file will be opened in the Multimedia Browser so that you can navigate easily.



Empty transcript and waveform in the Multimedia Browser

From this point on, you can play data on MAXQDA's built-in Media player, and begin the transcription process. You can process media files and insert timestamps using the icons in the Multimedia Browser and “Media player” toolbar as well as various keyboard shortcuts:



New timestamp F8 – inserts timestamp into the transcript or directly into the media file.




Prev F3 – jump to previous timestamp in the media file.




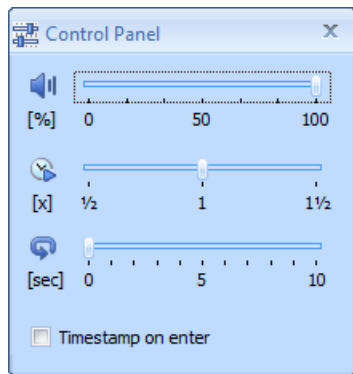
Stop – stops playback and returns to the beginning of the file.



 **Play/Pause F4** – stops playback at the current position and continues at the same point – using the rewind interval.

 **Next F5** – jump to next timestamp.

You can also access further transcription options via the **Control Panel**  icon in the “Media player” toolbar.



Set options for playing media files and transcribing

 **Volume** – set volume from 0 to 100 percent.

 **Playing Speed** – allows adjustment of playing speed from half to one-and-a-half times.

 **Rewind Interval** – Sets number of seconds to rewind from 0 to 10 when you start playing a media file.

☐ **Timestamp on enter** **Timestamp on enter** – If this option is selected, a timestamp will automatically appear in the “Document Browser” each time you press the Enter key.

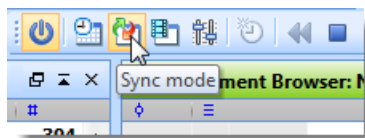
In order to facilitate the transcription process, MAXQDA 11 offers improved foot pedal functionality for audiotranskription.de foot pedals:

- ☐ Previous versions of MAXQDA supported only the yellow “Science” switch, whose function is the same as the **F4** key: Press once to play, and a second time to stop.
- ☐ In MAXQDA 11 (and in MAXQDA 10 from Release 111111) the black “Science II” switch is also supported. This switch can be held down to play media data, and will stop playing when released.

20.9 Synchronizing Transcribed Text with Audio/Video files

MAXQDA allows you to play an audio or video file at the same time as the transcript. You can view media files synchronized to their transcribed texts, like a teleprompter for a television presenter, or karaoke, in which you can read the text on the screen while listening to the music.

To start a synchronized playback, click on the **Sync mode** button in the “Media player” toolbar.



Activate Sync mode from the “Media player” toolbar

Begin by clicking the **Play** button or the **F4** key. You can also click on a timestamp in the document.

20.10 The List of Timestamps

The timestamps list has as many rows as there are timestamps in the document, and every row has three columns. The first two columns contain the start and end points of that segment. In the third column, you have the option of writing in a short comment about that particular segment.

 A screenshot of a window titled 'Timestamps'. It shows a table with 6 rows and 3 columns: 'Begin', 'End', and 'Comment'. The first row is highlighted. The table data is as follows:

	Begin	End	Comment
⌚	00:00:00.000	00:00:12.000	
⌚	00:00:12.000	00:00:18.000	Introduction
⌚	00:00:18.000	00:00:26.000	
⌚	00:00:26.000	00:01:33.000	Background information
⌚	00:01:33.000	00:02:39.000	Word to story prompts
⌚	00:02:39.000	00:03:25.194	

The list of timestamps

These columns are set up just like columns in any other MAXQDA table. Clicking on any of the column headers sorts the table by that particular column alphabetically (another click changes it to reverse alphabetical order). You also have the option to search in a column by right-clicking on the column header and selecting **Search**. If you don't know if your search term is the first word in the column, you can insert a “*” before your term. (A search for “*any” would find the word “company,” for example.)

If you are importing a document with timestamps, you still have the option to add new ones once it has been imported into MAXQDA. The option to write your comments in the list of timestamps also gives you a new way to find sections of your media file. Double-clicking on a row takes you to that section of the text in the “Document Browser” and starts playback of the media file from that point.



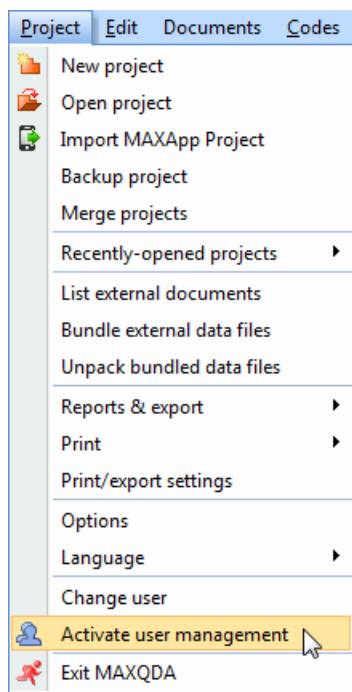
21 Admin System for User Management

21.1 Calling Up and Activating User Management

MAXQDA 11 supports teams working on projects with an optional user management system, in which you can set different rights for different groups of users.

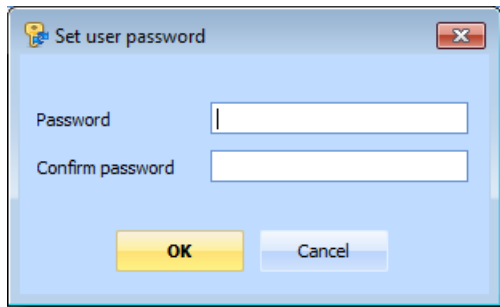
Note: The admin system is not designed to ensure secure of your projects, just for working together in teams.

To activate user management, select **Project > Activate user management** from the menu.



Activating user management

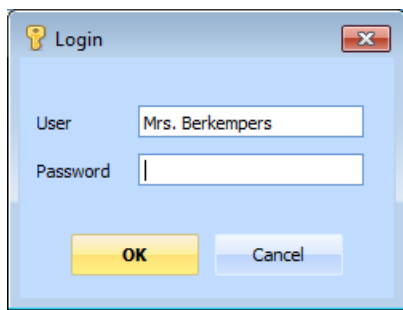
The user who activates the user management will automatically become administrator and has to set a password for his user name.



Set admin password

Caution: Note your password carefully! Without this password, the MAXQDA project can no longer be opened.

Once the administrator has been established, user management can only be opened with a valid administrator name and password. The next time the project is opened a login window will appear and you'll be prompted for a valid user name and password.

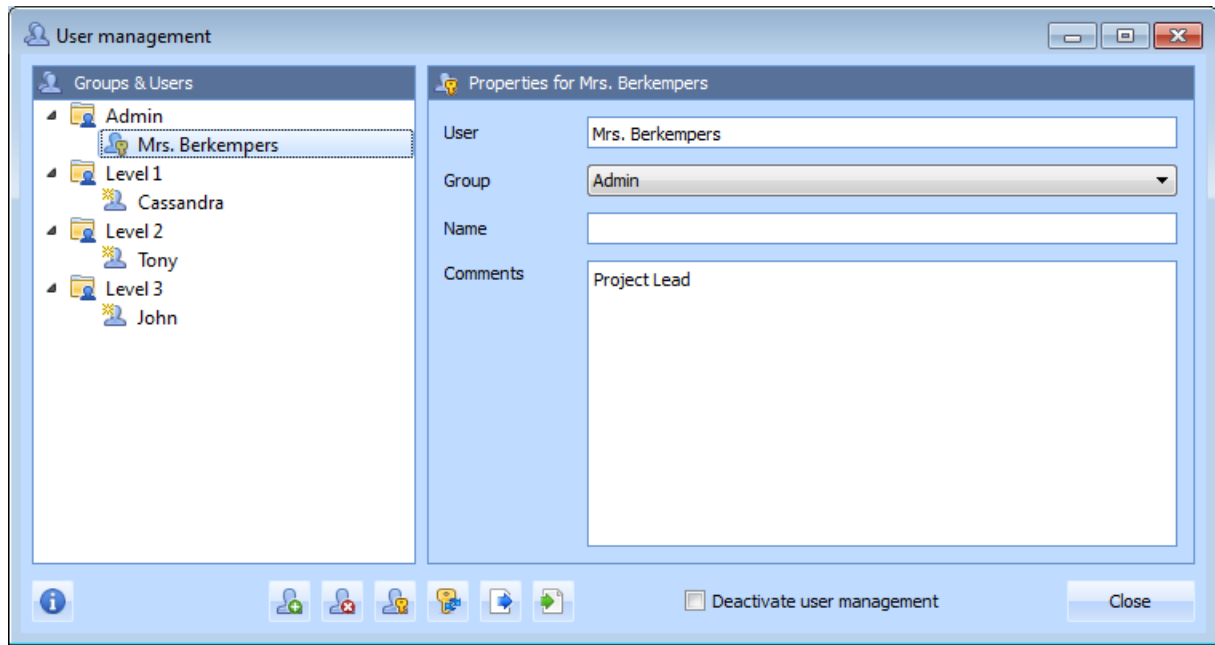


Login window

In the default configuration, only administrators are able to open the user management, add users or change rights.

21.2 The Main User Management Window


In the main user management window, you can create new users, remove existing users, and define the rights of individual user groups.



Main user management window

On the left side of the user management window, the various levels (Admin and Levels 1-3) are displayed. The right side of the window contains information about each user, which can be created or edited here; it is also here that users can be assigned to one of four user groups.

Adding a New User

Click on the **Add user**  button to add a new user. The new user settings can subsequently be edited:

User: Here you can set the user name (= Login name), with which the user can log into the project.


Group: Here you can set the level within the hierarchy to which the user is assigned.

Name: Here you can enter the user's real name.



Comments: In this field, you can post comments regarding the user.

The properties of a user can be modified at any time by clicking on the user name in the left side of the window.

Deleting Users

To delete a user, select the user name in the left side of the window and click the **Delete user**  button. You will be required to confirm your selection.

User Passwords

User passwords can be managed in two ways. If no password has been set by an admin, each user must first log in and set his own password. Alternatively, the administrator can set an initial password and communicate it to the other users. In order to set the initial password, click the **Set initial password**  button. The users can then access the MAXQDA project with this password, and set their own passwords upon first use. Only the user will know this new password. If a user forgets his password, the administrator can reset it by clicking the **Reset user password**  button. The administrator can also reset the initial password in this way.

Initial Password

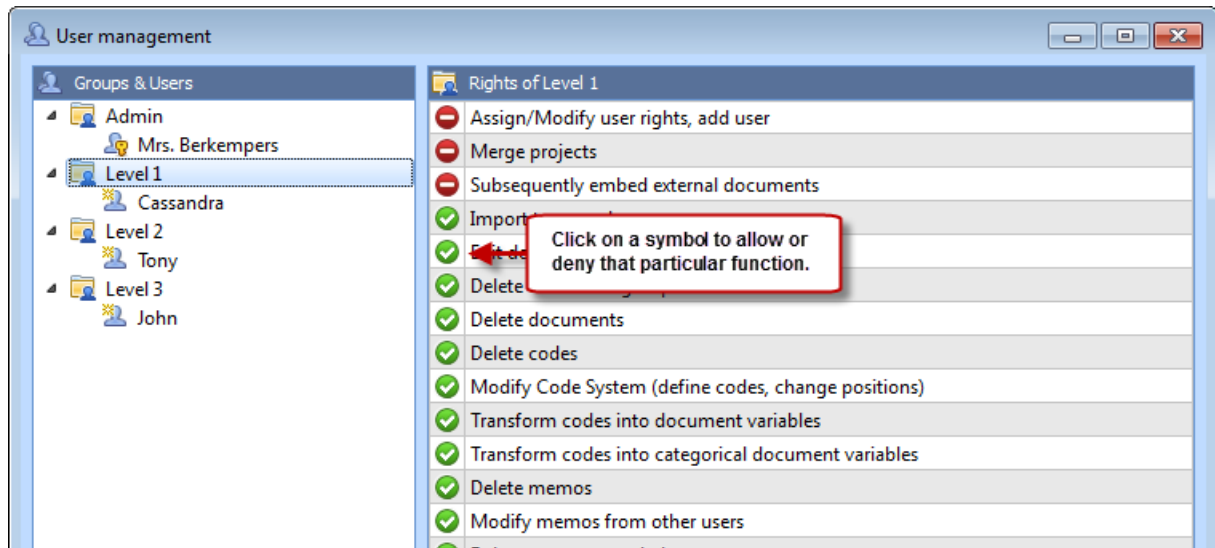
The purpose of the initial password is to act as a barrier to entry into the project. New users must enter this password the first time they log into a locked MAXQDA project, before setting their personal passwords.

Hierarchical Levels

When you click on a particular level in the left side of the window, the rights of the users at this level will be displayed on the right side of the window. Aside from the Admin Level, users can be placed in three different groups, from Level 1 to Level 3. In a research project, the levels can be established, for example, in the following way:

- ☐ Level 1: Project leaders
- ☐ Level 2: Research associates, who can import and delete texts, work with the “Code System,” and write, edit and delete memos
- ☐ Level 3: Student associates, who work primarily on the coding of material

The following image displays the default Level 1 functions. For example, the top three functions are reserved by default for the Admin Level. User rights can be modified at any time by clicking on the red or green icon in front each program function. Any number of users can be assigned to each level, including the Admin Level. At least one administrator must be defined in any case, meaning the last entry in this list cannot be deleted.





Define user rights for various levels of the hierarchy

Modify User Settings

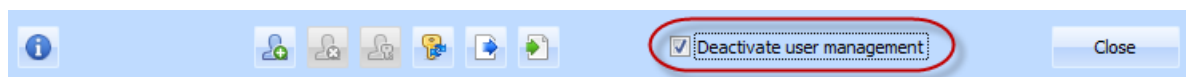
Click on a user name in the left side of the window in order to modify settings in the right side.

Importing and Exporting the Entire Admin System

It is possible to export the entire Admin System of a MAXQDA project, including user names, passwords and user rights. Click on the **Export**  button on the lower edge of the main window. The data will be saved in MXUSR format, which is, of course, encrypted. This file can be imported into another MAXQDA project by clicking on the **Import**  button, thus saving the administrator a lot of time.

Deactivating User Management

It is possible to deactivate user management at any time by checking the corresponding box at the lower edge of the window, then closing the window.



Option "Deactivate user management"

All user names and passwords will be saved in the project, so it is possible to reactivate the user management at any time.

22 Smart Publisher

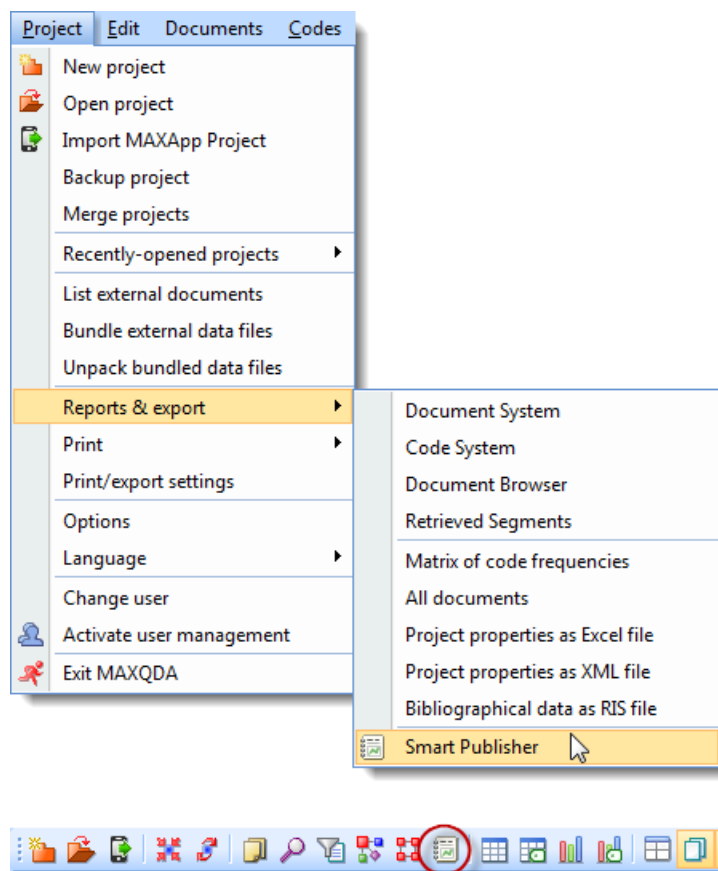
22.1 Using Smart Publisher

Smart Publisher is a convenient report generator. It exports selected retrieved segments in a formatted Word document report, including title page and table of contents. The structure of the report is determined by the "Code System:"

- ☐ An individual chapter will be created for each top-level code.
- ☐ A subchapter will be created for each subcode.
- ☐ Coded Segments of each code form the content of each (sub)chapter.

Opening Smart Publisher

Smart Publisher can be accessed by clicking the icon in the main menu, or **Project > Reports & export > Smart Publisher**.

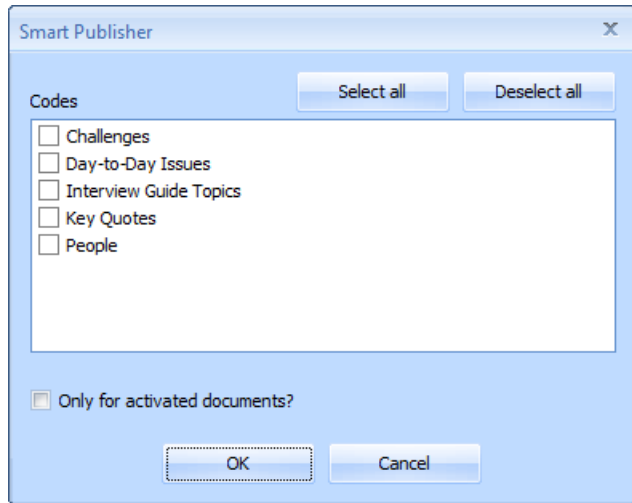


Opening Smart Publisher

When Smart Publisher is called up, a dialog window will appear in which you can select the codes to be included in the report. When top-level codes are selected, their corresponding



subcodes will automatically be included in the report. You can also choose to include coded segments only from activated documents.



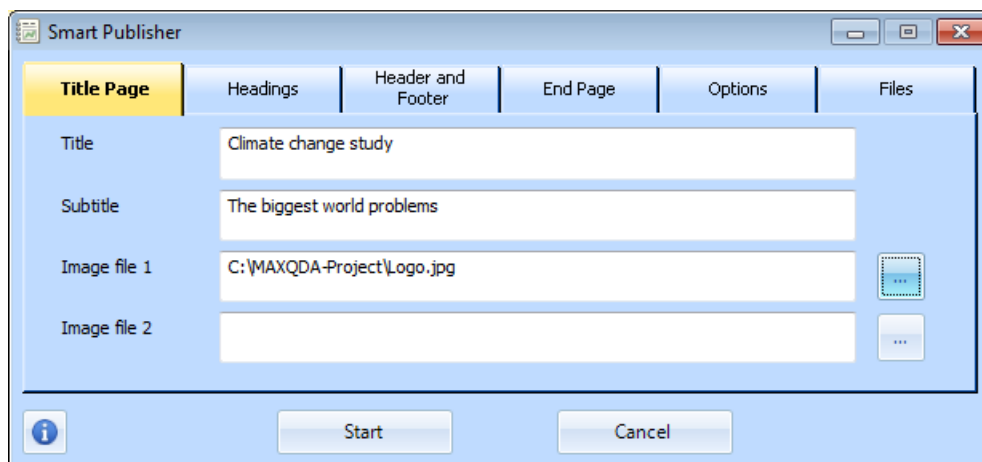
Selecting top-level codes for Smart Publisher

When you click on **OK**, Smart publisher will begin preparing the report. This can take several minutes, depending on the number of coded segments to be included.

Tip: While Smart Publisher is generating your report, you should not use Word. Using Word might interfere with the generation of the report.



22.2 Smart Publisher Settings

The following dialog window displays the various options available when creating a report. For easy navigation, Smart Publisher settings are displayed in seven tabs:



Smart Publisher settings

"Title Page" Tab

Title	<input type="text" value="Climate change study"/>	
Subtitle	<input type="text" value="The biggest world problems"/>	
Image file 1	<input type="text" value="C:\MAXQDA-Project\Logo.jpg"/>	
Image file 2	<input type="text" value=""/>	

Title – The title, which will appear on the first page of the report.

Subtitle – The subtitle, which will appear on the first page of the report.

Image files 1 und 2 – Selection of up to 2 image files, which will appear on the first page of the report. If the field is left blank, no image will appear.

"Headings" Tab

Table of contents	<input type="text" value="Table of contents"/>
Documents	<input type="text" value="Documents"/>

Table of contents – Heading for Table of contents

Documents – Heading for listing of relevant documents

"Header and Footer" Tab

<input checked="" type="checkbox"/> Header and Footer	
Header	<input type="text" value="Climate change study"/>
Footer	<input type="text" value="Research Institute Sunstrider"/>

Reports can be formatted to include headers and footers, which will appear on each page after the title page.

Header – Header text

Footer – Footer text



"End Page" Tab

Reports can optionally include an end page, on which to display, for example, a synopsis or acknowledgements.

Title – End page heading

Text – Text which will appear on the end page

"Options" Tab

Under the heading "List of sources," you will find numerous options for the presentation of coded segments in the report.

Quotation Marks – Text segment will be placed in quotation marks.

Document – Document groups and document names will be displayed in the references below the segments.

Position – The beginning and the end of the coded segment (as well as paragraph numbers for textual data) will be included in the list of sources.

Creation date – The date on which the segments were coded will be included in the list of sources.

Author – The name of the user who coded the segments will be included in the list of sources.

Weight – The weight of the coded segments will be included in the list of sources.

The following figure shows an extract from a report that was generated using Smart Publisher. The displayed segment comes from the paragraphs 35-36 of the document "Jon" from the document group "New York." It was encoded with a weight of 100. The segment was assigned the code "Significantly Positive:"

Significantly Positive

1.

"Overall:

Overall, I would rate my satisfaction with life with a 9. Right now I am happy but for all I know they could get even better or even worse, making that 9 a 10 or even lower. But for now things are good. I am loved, I am cared for, I have a job, I can support myself to a certain degree. Things are looking pretty good for myself in the future. Hey it makes me smile."

[New York\Jon; Position: 35-36; Weight score: 100]

Extract from a Smart Publisher report

You can limit the output of the report to segments whose weight falls within defined perimeters. If no upper or lower limit is defined, all segments will be exported. If the fields indicating the upper and lower limits are left blank, the minimum (0) and maximum (100) will automatically be applied.

For the order of coded segments, three options are available: 1. by "Document System," 2. by weight score – ascending, and 3. by weight score – descending.

"Files" Tab

Word template (* .dot/x)	C:\Programs\MAXQDA11\MXReport_A4.dot	...
Output file	C:\MAXQDA-Project\Climate change study.docx	...

In the last tab, you can indicate which Word template type Smart Publisher should choose. The Word template determines the appearance of the report and can be easily modified (see below)

The Finished Report

The finished report is in the form of a Word document (DOCX format), which includes a title page, table of contents, a page which lists of all the documents included in the report, and the main section including all of the exported segments. If a header/footer was included, it will appear on all pages aside from the title page. If an end page was included, it will appear at the end of the report.

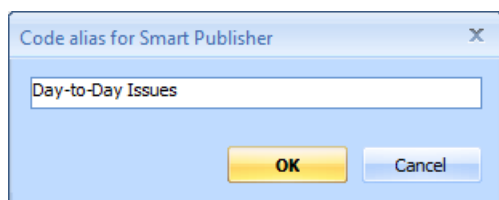
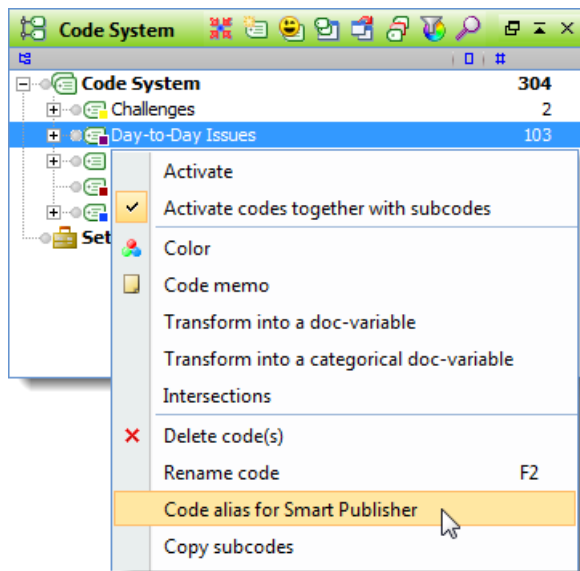


All elements of the report are formatted using the Word template (DOT format). Formatting of the final report can be modified; for example, you can easily insert additional pages or content.

22.3 Alias Names for Codes

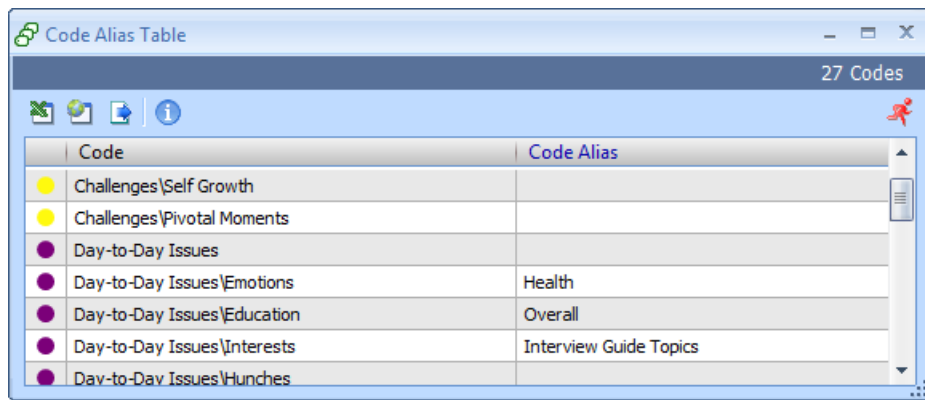
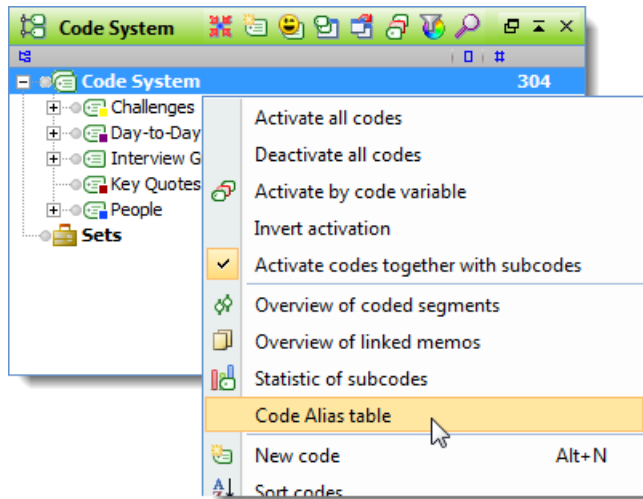
Smart Publisher uses the code names from the “Code System” as headings for the individual subchapters of the report. However, you may wish to assign an alternate name to some or all of the subchapters in the report. This may be the case if the 63 characters per heading allowed by the system are not enough, and you wish to create a longer name, or if, in other cases, a shorter heading would be more appropriate. For this reason, MAXQDA allows you to create a “code alias” of up to 225 characters.

In order to assign a code alias, right-click on the code in the “Code System” and select “Code alias for Smart Publisher.” A dialog window will appear, in which you can enter the code alias. If a code alias is assigned, Smart Publisher will always use the alias in the place of the original code name as the chapter heading in the report.



Assigning a code alias

When you click on the root in the “Code System,” a table will appear, in which you can conveniently create code aliases for multiple codes.



Code Alias Table accessed via the context menu in the "Code System"

22.4 The Word Template

Upon installation of MAXQDA, two document templates named "MXReport_A4.dot" and "MXReport_Letter.dot" will be installed in the MAXQDA program folder. These templates can be opened with Microsoft Word and edited. As the file name indicates, one document is set to A4, while the other is set to letter format. You can create multiple versions of the Word templates for different occasions and customize them according to your needs.

Placeholder for Customization of Word Templates

The Word templates contain placeholders, for example for titles and subtitles written as <Title>. These placeholders can be modified just like any other content in a Word document. The position of the placeholders can also be modified as desired.

If a placeholder is deleted, it can no longer be inserted by Smart Publisher.

The following placeholders can be used:

☐ <Date> = Creation date of the report



- ☐ <Title> = Title assigned on the “Title Page” tab for the report
- ☐ <Subtitle> = Subtitle assigned on the “Title Page” tab for the report
- ☐ <Image 1> = Image file 1
- ☐ <Image 2> = Image file 2
- ☐ <ContentTable> = Table of contents
- ☐ <DocumentList> = Document list
- ☐ <Documents> = List of documents in table form



Placeholders for Word templates

Format Templates

The Word templates contain predefined format templates, which should not be deleted:

- ☐ MX_Header1–9 (chapter titles according to the position of codes in the code system)
- ☐ MX_Standard (textual content from coded text segments)
- ☐ MX_Numbering (numbering of individual text segments within the chapter)
- ☐ MX_Table (list of documents in table form)

The format templates can be customized directly in the Word templates. Formatting of content can also be customized here.

Note: The template contains some example text, including headlines and text segment presentation, which can be easily adapted to suit your needs. You can modify the sample texts, however, when the report is generated, only the tags will be applied and all other text will automatically be deleted.

23 Project Organization and Data Security

23.1 Renaming, Deleting, and Duplicating Projects

Creating a New Project

MAXQDA allows you to work with as many different projects as you want. If you want to work separately with a secondary data set, you just need to create a new project for it.

This is how it's done:

1. Click on the **Project** drop-down menu.
2. Select **New project**.
3. Navigate to the folder where you would like to save this new project
4. Give the project a name and click **Save**.

Every project in MAXQDA is given the ending MX5. In order to secure your work, it is recommended that you back up this file regularly on a CD-ROM, flash drive, or external hard drive. Qualitative data analysis is a lot of work, but it only takes a minute to back it up and avoid risking a loss of your work if something happens to your computer.

Deleting a Project

If you want to delete a project, you can do so in the same way you would delete any other file in Windows Explorer. MAXQDA 11 projects always have the file ending MX5, and the projects from previous MAXQDA versions have the endings MX4, MX3, MX2, or M2K. It is not possible to delete a project directly from the MAXQDA interface.

Whether or not it is possible to undelete a project depends on your Windows Recycle Bin settings, but MAXQDA does not have any control of these operations on the operating system level.

Renaming a Project

Renaming a project can also only be done from Windows Explorer, not within MAXQDA. Right-click on the project file and select **Rename** from the context menu that appears.

Duplicating a Project

MAXQDA projects can easily be duplicated. Simply select **Backup project** from the **Project** drop-down menu in MAXQDA. This creates a copy of your project file, and it is recommended that you do this on a regular basis, so you can always revert back to older versions of your project if you accidentally delete important aspects of it. When you back up the project, the backup may be slightly smaller than the original file – this is because the project is cleaned up, meaning deleted file associations, for example, are deleted.

This is how it works:

1. Open the **Project** drop-down menu.
2. Click on **Backup project**.
3. Choose the folder that you would like to save the file in.
4. Assign a name for the file and click **Save**.

To work with the copy of the project, you will need to open it; unlike the “Save as ...” function in programs like Word, the newly-created file isn’t opened automatically.

23.2 Project Maintenance

Everything that you have deleted in a project is not actually physically removed from the MX5 file. This means that the project file doesn’t get smaller when you delete a document or document group. These deleted items are only discarded when you duplicate the project with the **Backup project** function. Therefore, if you have deleted many aspects of your project as you’ve been doing your analysis, it makes sense to use this function occasionally to slim down your project file size. It also makes sense to do this before copying the file to an external medium for backup.

23.3 Manual and Automatic Backups for Projects

Manual Backup

It is strongly recommended to make regular backup copies of your project and save them on an external device in case of computer damage or failure. Backup copies should be saved in a different location than your computer in case of theft, water damage, etc.

You can transfer your MAXQDA data onto an external device with the help of Windows Explorer. Alternatively, you can open the project in MAXQDA and select **Project > Backup project**. Then select the destination location and click **OK**.

Automatic Backup

MAXQDA allows you to save projects automatically. Open a project that has a set time limit (default 14 days) and is not automatically saved by MAXQDA. A message will appear asking if you would like to save the project now. When you accept, MAXQDA will save a copy in a selected directory (Default: My Documents\MAXQD11\Backup). MAXQDA provides the backup file with a date and time stamp.

Both the time interval, meaning how often the project will be saved, and the directory for the backup files, can be set in **Project > Options**. There, you can also disable the function entirely.



Note: Automatic backup is an extra security measure, but by no means replaces the regular backup your project files to external media, such as a portable hard drive!



24 Documentation and Printing

24.1 Documentation Options

If you are working on a project with a large data set and “Code System” – and especially if you are working in a team – it can be very important to document the current status of your research. MAXQDA is a fairly easy program to get an overview of, but at the same time, you might not know how to do so quickly.

MAXQDA offers the following options for quickly documenting your project:

In the **Project** drop-down menu, you will see two options: **Reports & export** and **Print**, which are both helpful for documentation. Both options give you the opportunity to access the contents of the four main windows and save them as a file (RTF- or XLS/X) or print them, for example. Here are the various aspects of the project that you can document by printing or exporting them:

- ☐ The “Document System”
- ☐ The “Code System”
- ☐ The document currently visible in the “Document Browser”
- ☐ The coded segments currently called up in the “Retrieved Segments” window

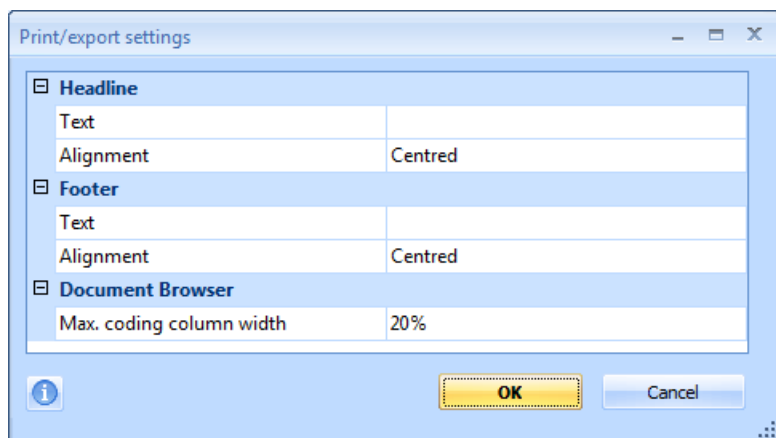
In the “Document System” and “Code System” windows, you will also find various overview functions that display information about memos, coded segments, links, and variables in table form. Their contents are based on the level of document or code hierarchy that you called them up from (e.g. for a document group, for all documents, etc.). These overview functions and variable tables also include the option to export them in HTML or Excel format for documentation purposes.

In the **Codes** drop-down menu, you can also call up a table of your codes and coded segments to be printed or exported. An additional function in the same menu let you view code frequencies.

24.2 Print/Export Settings

You can adjust various print and export settings by clicking on **Print/export settings** in the **Project** drop-down menu. The first two options are to add a header and footer and choose how you want them to be aligned (right, left, or center).

If you chose to print or export the “Document Browser” with coding stripes, you also have the option to set the maximum width of the coding stripe column. The default is set at 20%.



Print/Export settings

24.3 How to do Documentation

This section will give you an overview of the various documentation forms MAXQDA offers and how you can use them.

How many documents, coded segments, memos, etc. are there in the project that is currently open?

- ☐ Open the **Project** drop-down menu
- ☐ Click on the **Print** option.
- ☐ Choose to print **Project information**.

MAXQDA then creates the following report:

MAXQDA

14.03.2011

Project information

Document groups: 4
Documents: 16
Variables: 9
Sets: 0
Links: 0
Codes: 31
Code segments: 307
Memos: 23

Project information report



What document and document groups are there in this project?

- ☐ Open the **Project** drop-down menu
- ☐ Click on the **Print** or the **Reports & export** option.
- ☐ Choose **Document System**.

If you chose to export it, you will also be asked to assign it a name.

The printout of the “Document System” looks like this:

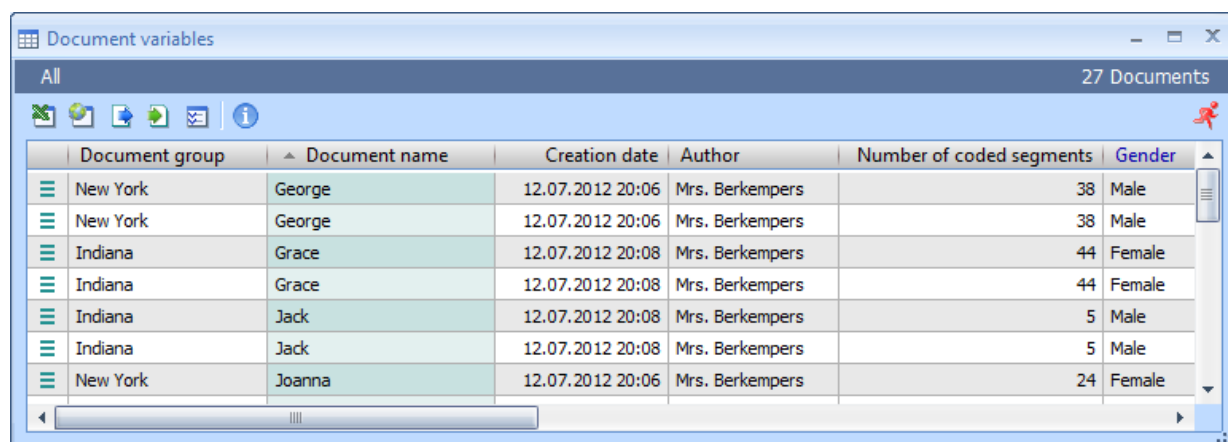
Documents	
New York	
	Teresa
	Joanna
	Jon
	Kim
	Milly
	Mary
	George
	Vincent
Indiana	
	Jack
	Kelly
	Grace
Websites & Literature	
	Suikkanen 2011
	OECD 2009
	Spector 1997
	WorldValuesSurvey
Images	
	LifeSatisfaction EU 1973-2010
Sets	

Printout of the Document System

What documents are part of the project? When were they imported, and how many times were they each coded?

- ☐ Open the **Variables** drop-down menu
- ☐ Click on the **Data editor (document variables)** option.
- ☐ A variable table appears with each document making up a row. To choose which columns you want to display, right-click on a column header, choose **Select fields**, and check the box next to the columns you want.

The documentation table then looks like this:



The screenshot shows a window titled 'Document variables' with a sub-header 'All' and '27 Documents'. Below the header is a table with the following columns: Document group, Document name, Creation date, Author, Number of coded segments, and Gender. The table contains 8 rows of data.

Document group	Document name	Creation date	Author	Number of coded segments	Gender
New York	George	12.07.2012 20:06	Mrs. Berkempers	38	Male
New York	George	12.07.2012 20:06	Mrs. Berkempers	38	Male
Indiana	Grace	12.07.2012 20:08	Mrs. Berkempers	44	Female
Indiana	Grace	12.07.2012 20:08	Mrs. Berkempers	44	Female
Indiana	Jack	12.07.2012 20:08	Mrs. Berkempers	5	Male
Indiana	Jack	12.07.2012 20:08	Mrs. Berkempers	5	Male
New York	Joanna	12.07.2012 20:06	Mrs. Berkempers	24	Female

Information about each document in the variable table

You can sort this table by any column, and sections of the table can be highlighted, copied to the Windows clipboard, and pasted in other programs, like Microsoft Word. If you choose to **Reports & export** the table in HTML or XLS/X format, a table will be created and opened in the appropriate program (an internet browser for HTML files, Excel for XLS/X files), which you can then print out if you wish.



The screenshot shows a table with the following columns: Document group, Document name, Creation date, Author, Number of coded segments, and Gender. The table contains 4 rows of data.

Document group	Document name	Creation date	Author	Number of coded segments	Gender
New York	George	12.07.2012 20:06	Mrs. Berkempers	38	Male
New York	George	12.07.2012 20:06	Mrs. Berkempers	38	Male
Indiana	Grace	12.07.2012 20:08	Mrs. Berkempers	44	Female
Indiana	Grace	12.07.2012 20:08	Mrs. Berkempers	44	Female

Information about each document in the variable table exported in HTML format

Documentation of Documents in a Certain Document Group: When were the documents imported and how many times were they coded?

- ☐ Right-click on the **document group** in the "Document System."
- ☐ Choose **Overview of variables** from the context menu.
- ☐ The variable matrix appears with each document of that document group represented in a row. If you want to limit which columns are included in the matrix, right-click on a column header, choose **Select fields**, and check the box next to the columns you want.

This documentation form is set up similar to the one shown in the screenshot above.

You can sort this table by any column, and sections of the table can be highlighted, copied to the Windows clipboard, and pasted in other programs, like Microsoft Word. If you choose to **Reports & export** the table in HTML or XLS/X format, a table will be created and opened in the appropriate program (an internet browser for HTML files, Excel for XLS/X files), which you can then print out if you wish.



Documentation for a Single Document: When was it imported, and how many times was it coded?

- ☐ Right-click on the **document** in the “Document System.”
- ☐ Choose **Overview of variables** from the context menu.
- ☐ The variable matrix appears with only one row, representing the single document. If you want to limit which columns are included in the matrix, right-click on a column header, choose **Select fields**, and check the box next to the columns you want.

This form of documentation looks exactly like the one for a document group, except that it is limited to one row.

What codes and subcodes are in the project?

- ☐ Open the **Project** drop-down menu
- ☐ Click on the **Print** or the **Reports & export** option.
- ☐ Choose **Code System**.

If you chose to export it, you will also be asked to assign it a name.

The printout of the “Code System” looks like this:

Code System [307]	
placement program	[2]
Insurance	[1]
analyst	[1]
satisfaction	[0]
Challenges	[0]
Life Strategy	[0]
Self Growth	[0]
Pivotal Moments	[1]
Day-to-Day Issues	[2]
Emotions	[25]
Education	[19]
Interests	[15]
Hunches	[0]
Money and Financial Issues	[6]
Damn	[0]
Religion and Spirituality	[7]
Significantly Positive	[29]
Interview Guide Topics	[0]
Health	[16]
Damn I wish I looked like that	[2]
Overall	[8]
Recreation	[14]
Home Life	[12]
Relationships	[25]
Work Issues	[13]
Key Quotes	[26]
People	[17]
Friends	[21]
Parents	[18]
Partner	[20]
Siblings	[7]
Sets	[0]

Printout of the Code System

If you want to view the codes exactly as they are seen in the “Code System,” you can make a screenshot of it when MAXQDA is open. To do this, it makes sense to maximize the “Code System” window, so you can see more of the codes at one time. When you have the codes looking like you want them, press the **PrntScr**n button on your keyboard. This will save a picture of the screen to the Windows clipboard. You can then open an image editing software and paste it in as a new file or paste it into a Word file.

Which codes are used in each document?

You can call up a table with an overview of your coded segments for a document as follows:

- ☐ Right-click on the **document** in the “Document System.”
- ☐ Select **Overview of coded segments** from the context menu.
- ☐ A table with all of the coded segments for that document will appear. You can sort this however you wish and choose which columns are to be included.

	Comment	Document	Code	Begin	End	Preview
		Jack	Day-to-Day Issues\Emotions	6	6	I want to be happy
		Jack	People\Partner	6	6	I want to be happy
		Jack	Interview Guide Topics\Health	7	8	Health: stay health

The “Overview of coded segments” for a specific document

Sections of the table can be highlighted, copied to the Windows clipboard, and pasted in other programs, like Microsoft Word. If you choose to export the table in HTML or XLS/X format, a table will be created and opened in the appropriate program (an internet browser for HTML files, Excel for XLS/X files), which you can then print out if you wish.

Another option is to use MAXMaps. If you open a new map, you can simply drag the document into it, right-click on it, and choose to **Import activated codes**. Obviously, it is necessary to activate those codes ahead of time in the “Code System” that you want to be included.

Which codes are attached to which segments in a certain document?

A good overview of this is offered by the **Codeline** visualization, which shows the use of each code in the document by paragraph. You can then view any of the visualized coded segments in the “Document Browser” by double-clicking on any of the colored bars.

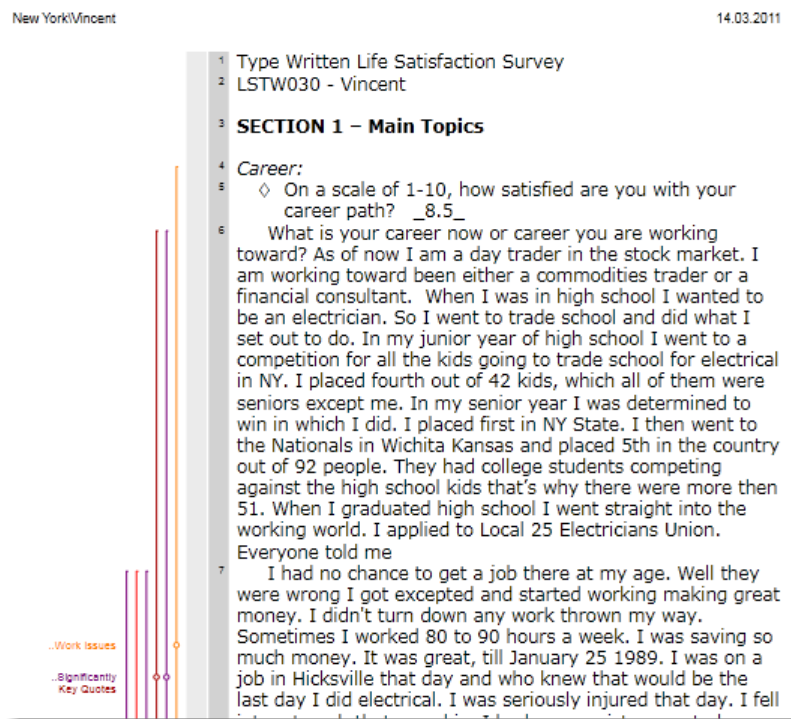


You can also see which codes are assigned to which sections of your document by viewing that document in the “Document Browser.” As you scroll through the document, you will see the coding stripes just to the left of the text or image. To see exactly where the coded segments start and end, simply click on the coding stripe; the coded segment will then be highlighted for you.

Many users will want to have all of this documented on paper, though, which can be acquired as follows:

1. Open the document in the “Document Browser” by double-clicking on it in the “Document System.”
2. Then select **Print > Displayed document** from the **Project** drop-down menu.

You will then be given the choices whether you want to visualize the coding stripes and memos in the printout. Normally, you will indeed want to do this. If you have Adobe Acrobat installed on your computer, you can also choose to print the document as a PDF, which will then keep your formatting as you see it in the “Document Browser.” The results look like this:



Printout of the document in the “Document Browser”

Which document segments has a particular code been assigned to?

To see an overview table of the coded segment for a particular code, follow these steps:

1. Right-click on the **code** or **subcode** in the “Code System.”
2. Select **Overview of coded segments** from the context menu that appears.

3. A table overview of the coded segments for that code will appear. Clicking on any of the rows of the table at the bottom will bring up a preview of the coded segment in the top window. You can sort the table according to any of the column values and hide the columns you don't need. You could then, for example, sort the table according to document or weight score.

If you do the above procedure for a code that has subcodes, the document segments coded with one of the subcodes will also appear in the table.

You have the option to export the table in various formats:

- ☐ As an Excel table in XLS/X format.
- ☐ In TXT tab-delimited format.
- ☐ In HTML table format.
- ☐ You can also simply highlight all or sections of the table, copy it to the Windows clipboard with **Ctrl+C**, and paste it into another program (e.g. Microsoft Word).

What memos are in the project?

The Memo Manager offers all of this information.

1. Select **Memo Manager** from the **Memos** drop-down menu.
2. A table appears with each memo in a row.
3. You can hide those columns that you don't need and sort the table according to any of the column values (e.g. my memo type, document, etc.).



Symbol for the Memo Manager in the "MAXQDA standard" toolbar

You have the option of exporting this table in the following formats:

- ☐ As an Excel table in XLS/X format.
- ☐ In TXT tab delimited format
- ☐ In HTML table format.
- ☐ You can also simply highlight all or sections of the table, copy it to the Windows clipboard with **Ctrl+C**, and paste it into another program (e.g. Microsoft Word).

Which memos exist in a document or document group?

1. Right-click on the **document** or **document group**.
2. Select **Overview of memos** from the context menu that appears.
3. A table overview of the memos for that document or document group will appear. Clicking on any of the rows of the table at the bottom will bring up a preview of the coded



segment in the top window. You can sort the table according to any of the column values and hide the columns you don't need.

You can also export this table:

- ☐ As an Excel table in XLS/X format.
- ☐ In TXT tab delimited format
- ☐ In HTML table format.
- ☐ You can also simply highlight all or sections of the table, copy it to the Windows clipboard with **Ctrl+C**, and paste it into another program (e.g. Microsoft Word).

Which memos are linked to a certain code?

- ☐ Right-click on a **code** in the "Code System."
- ☐ Select **Overview of linked memos** from the context menu that appears.
- ☐ A table overview of the memos for that code will appear. Clicking on any of the rows of the table at the bottom will bring up a preview of the coded segment in the top window. You can sort the table according to any of the column values and hide the columns you don't need.

25 Import/Export Options

25.1 Overview of Import and Export Options

MAXQDA offers a variety of options for exporting data to other software programs like SPSS or Microsoft Office programs. The following table gives an overview of the different options.

Data Type	Option in MAXQDA	Format
Single document	Project > Reports & export > Document Browser Or select everything in the “Document Browser” with Ctrl+A and copy it to the Windows clipboard.	RTF, XLS/X for tables, PDF for PDF files and original image formats for images
Highlighted document segment	Highlight and copy the selection with Ctrl+C or by selecting Copy from the Edit drop-down menu.	Windows clipboard
One or more coded segments	Highlight the segments by clicking on them while holding the Ctrl button and choose the export option or copy with Ctrl+C	XLS/X, HTML, RTF, Windows clipboard
All coded segments in the “Retrieved Segments” window	Project > Reports & export > Retrieved Segments or from the “Retrieved Segments” window, hit Ctrl+A to highlight all of them and Ctrl+C to copy them to the Windows clipboard	XLS/X, HTML, RTF, Windows clipboard
Coded segments for a single document (teamwork)	Right-click on the document and select Export teamwork	.MEX (internal format)
Memos	Export in Memo Manager	RTF, XLS/X, HTML
Memos for a particular document (for teamwork export)	Right-click on the document and select Export teamwork	.MEX (internal format)
Memos for a particular document	Right-click on the document and select Overview of memos	RTF, XLS/X, HTML
Text of a memo	Copy to Windows clipboard with Ctrl+C	Windows clipboard

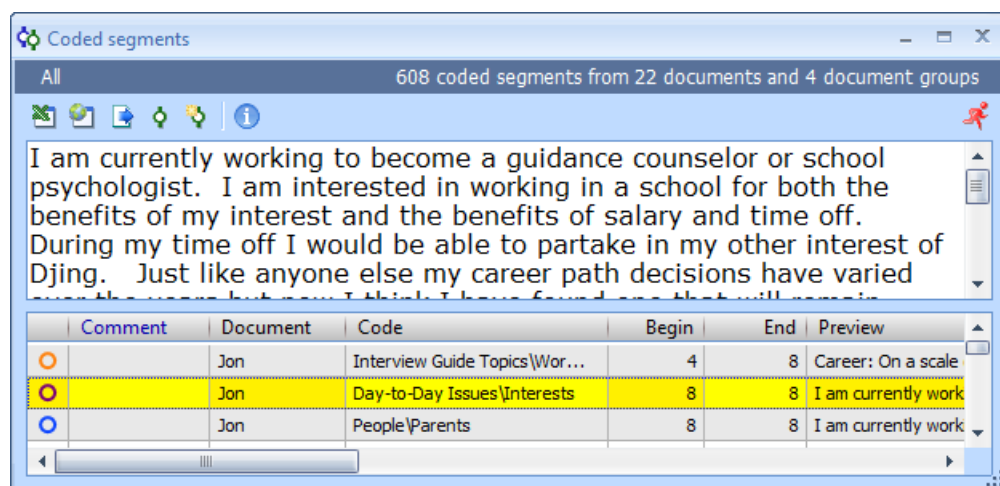


List of variables	Variables > List of document variables or code variables and then click on the icon in the toolbar for HTML or XLS/X table	.HTML, XLS/X
Variable table (export)	Variables > Export data (document variables) or (code variables) or click on the Export icon in the “Data editor”	.TXT (tab-delimited), HTML, XLS/X
Variable table (import)	Variables > Import data (document variables) or (code variables)	XLS/X or TXT (tab-delimited)
Variables and variable values for a document (teamwork)	Right-click on the document and select Export teamwork	.MEX (internal format)
Export variable values for a document	Right-click on a document , select Overview of variables , and click on the Export icons in the toolbar	TXT (tab-delimited), HTML, XLS/X
Code frequencies table	Codes > Overview of coded segments and click the Export icon or highlight the cells of the table that you want to copy and hit Ctrl+C to copy them to the Windows clipboard	TXT (tab-delimited), HTML, XLS/X or Windows clipboard
Code frequencies	Project > Reports & export > Matrix of code frequencies	TXT (tab-delimited), HTML, XLS/X

25.2 Exporting the “Overview of coded segments”

You might also want to export the “Overview of coded segments,” so it can be analyzed in other data analysis programs. Unfortunately, there has been very little standardization of file formats in data analysis programs, which makes it very difficult to exchange files. This matrix, however, includes all the information you would need to move your coded segments to another software. All that is required, then, is a form of import on the part of the other software developer.

The table can be called up by selecting **Overview of coded segments** from the **Codes** drop-down menu. It looks like this:



"Overview of coded segments"

The table contains a row for each of the coded segments, so the size of the table depends on how much coding has been done in the project.

Below is an overview of the various columns in the table:

Document	Contains the document name (formatted: document-group\document name)
Code	Contains the code or subcode (formatted: code\subcode)
Begin	The paragraph number where the coded segment begins
End	The paragraph number where the coded segment ends
Weight score	Weight score value
Preview	The first few lines of the coded segment
Comment	Comments written in by the user

To start the export, click on the appropriate icons in the toolbar:



Show as Excel table – opens a table in XLS/X format with the coded segments



Show as HTML table – opens a table in HTML format with the coded segments



Export – allows for export of the coded segments in RTF, HTML, or XLS/X format.

This matrix can be statistically analyzed in various ways. The options range from simply frequency analyses to sequence analysis. It is also possible to aggregate the data on the case (document) level and then analyze, for example, correlations between codes.



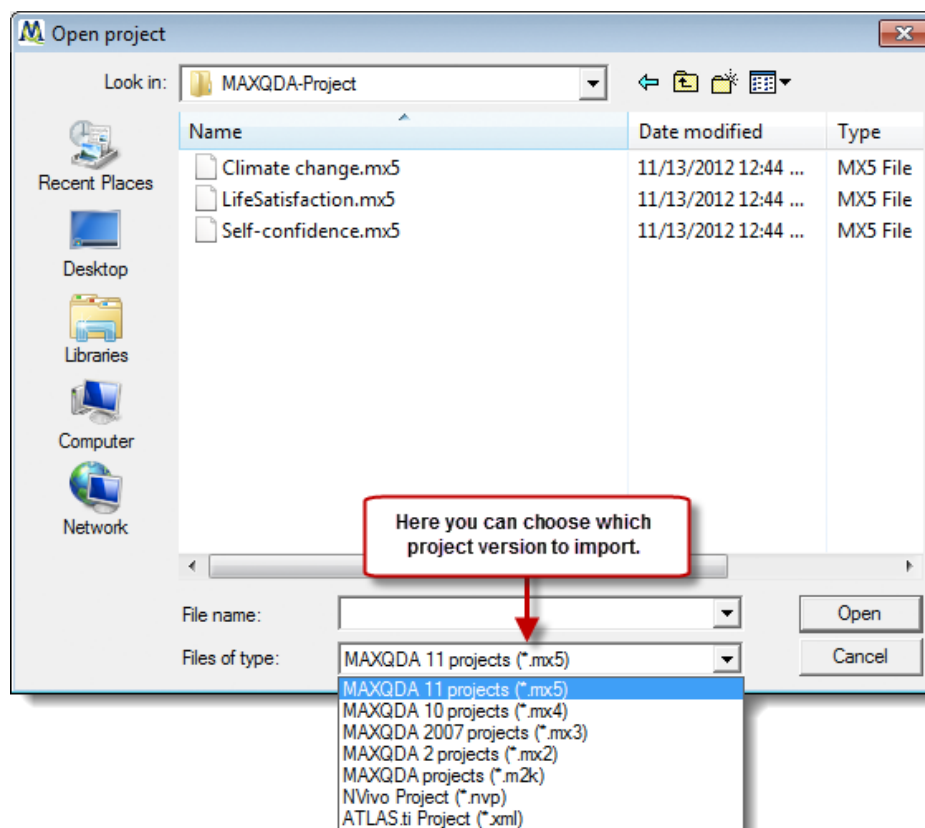
25.3 Importing Projects from Earlier Versions (MAXQDA 10 or older)

Since many new functions such as the Grid Tables & summaries and user management have been implemented in MAXQDA 11, a new file format has been created, which can be identified by the file extension MX5.

Projects created in earlier versions can be opened in MAXQDA 11 without any problem. MX5 projects can also be saved in the MX4 format for MAXQDA 10.

Import projects from previous versions of MAXQDA

To open a project created in MAXQDA 1, MAXQDA 2, MAXQDA 2007 or MAXQDA 2010, launch MAXQDA and select **Open project**. A dialog window will appear, from which you can select the file type which corresponds to your project.

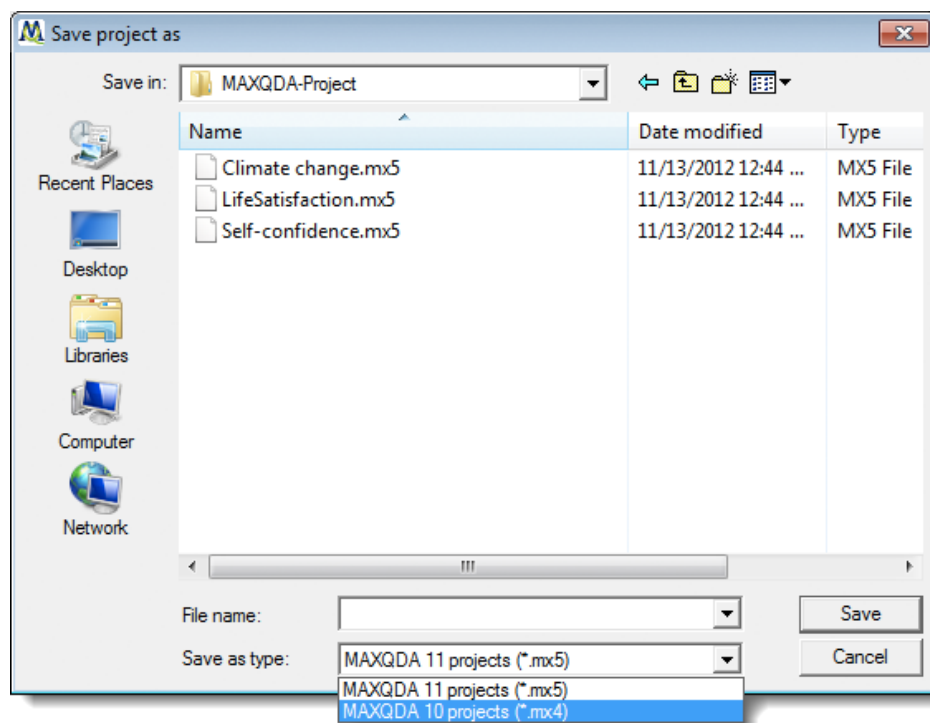


Import projects from previous versions into MAXQDA 11

When you click on **Open**, the project will be automatically converted into the new format and saved as an MX5 file. The old file format will remain in place.

25.4 Saving MX5 Projects as MX4 Projects

MAXQDA 11 projects cannot be opened directly in any previous version. However, they can be saved as MAXQDA 10 projects. To do so, select **Project > Backup project**. In the dialog window that appears, select the file type **MAXQDA 10 projects (*.mx4)**.



Save MX5 projects as MX4 projects for MAXQDA 10

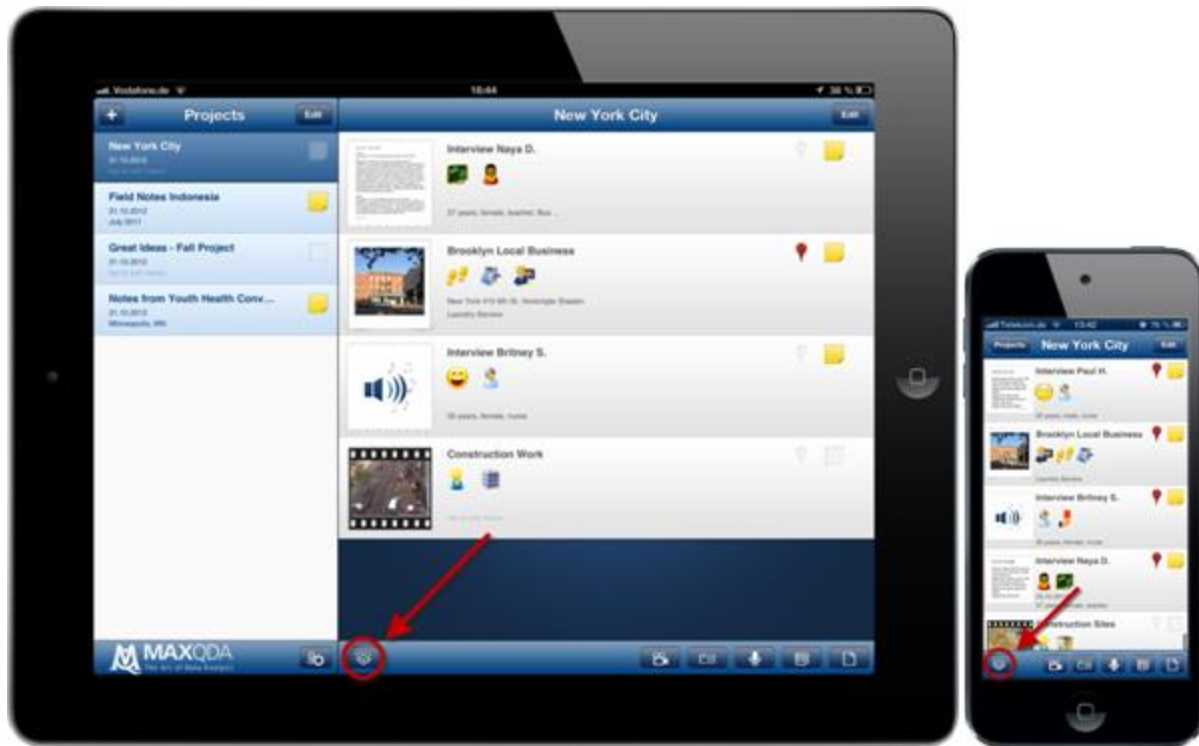
Note: When you convert the file to MX4 format, new functions such as table documents, summaries etc. will not be supported. The new functions will nevertheless remain in the project file, meaning that they will once again be available if the MX4 file is converted back to MX5 format.

25.5 Importing Projects from MAXApp

In the main toolbar, you will find the option to Import MAXApp Projects. With this function, you can import documents that you created with MAXApp on your mobile device into the currently opened MAXQDA project. The documents will be imported into a new document group with their document memos, coded text segments precoded with emoticons, and geographical references where it applies.



Export project from MAXApp



Exporting projects from MAXApp

Select the project you want to export and touch the **Dropbox icon** at the bottom of the screen to call up your Dropbox (if you don't have a Dropbox, get one at www.dropbox.com). Log in with your Dropbox user name and password and when asked, allow MAXApp to copy files into your Dropbox. Once the MAXApp Export Screen comes up, hit "Start" and all of the documents of your project will be exported to your Dropbox.

Import Project into MAXQDA 11



MAXApp project import icon

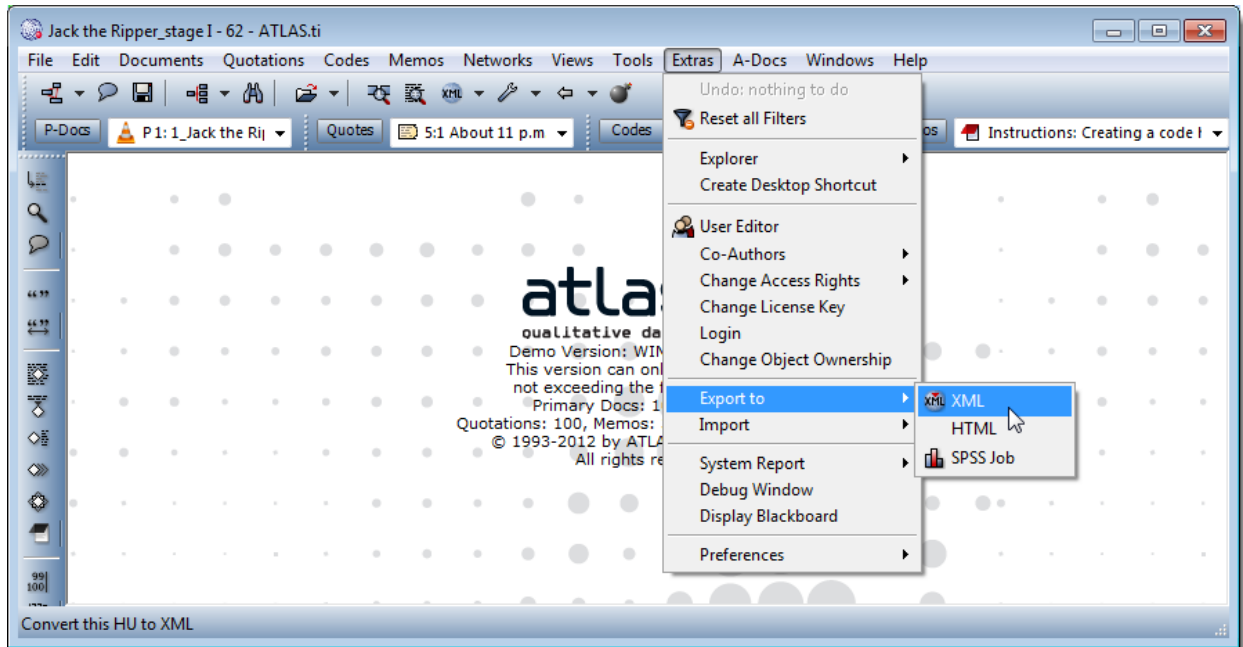
In the main toolbar, click on the **Import MAXApp Project** button and navigate to your main Dropbox folder on your computer. In your Dropbox folder you can find your project in "Dropbox\Apps\MAXQDA." Open the folder that is named like the project you just exported, click on the XML file inside that folder and choose **Open**.

The documents will be imported into your project and placed in a new document group that is named exactly like your MAXApp project.

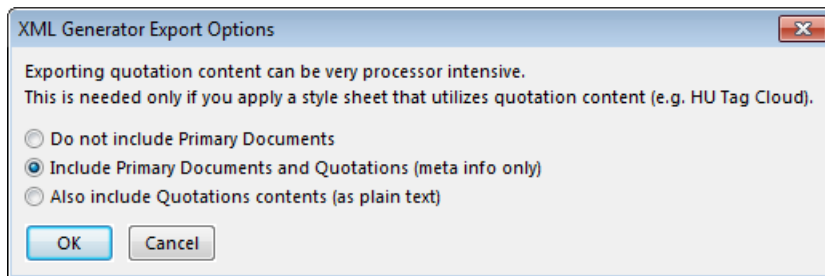
25.6 Importing ATLAS.ti Projects

Since version 10, MAXQDA has allowed for the import of ATLAS.ti version 6 projects.

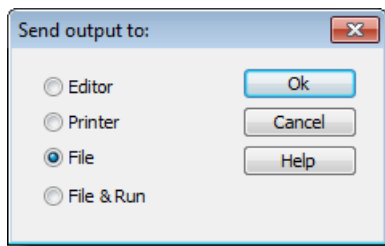
Step 1: Export the complete ATLAS.ti project in XML format. To do so, select **Extras > Export to > XML** in ATLAS.ti 6.



In the export options, select **Include Primary Documents and Quotations (meta info only)**.



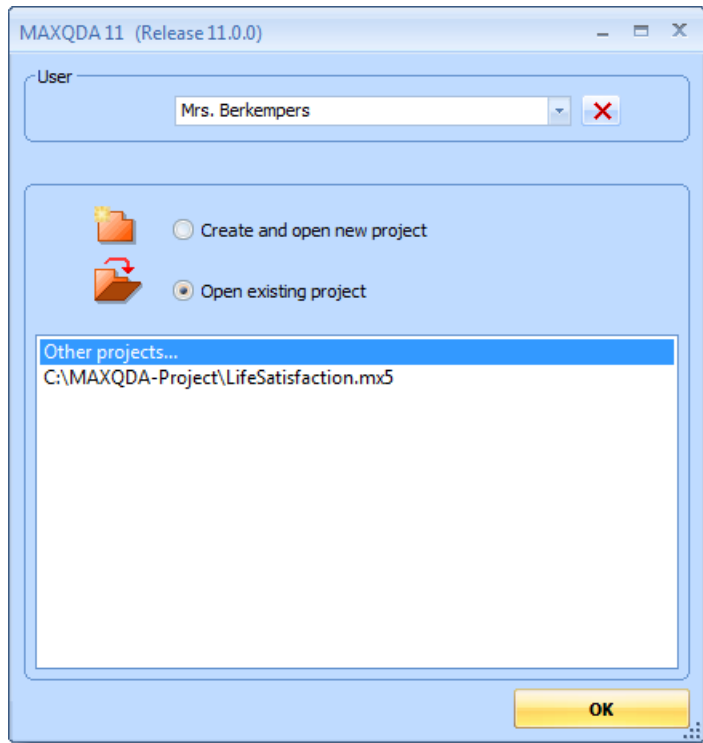
Select **File** as output medium.



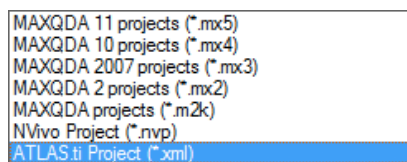
Choose the folder that contains the HPR6 file as the location for the XML file.



Step 2: Import the XML data into MAXQDA. Open MAXQDA and select **Open existing project > Other projects ...** and click **OK**. If MAXQDA is already opened, you can alternatively choose **Project > Open project**.



Select data type **Atlas.ti Project (*.xml)**, then go to the folder containing the saved XML file.



Select the XML file and click **OK**. MAXQDA will create a new project in the same directory and begin the import process (this may take several minutes to complete.) MAXQDA will transfer the documents, codes, codings and memos of the imported project.

Please wait until MAXQDA displays a message stating that the import is complete.

Note: If you want to import Atlas.ti 7 projects it may work if you have integrated the documents as linked documents.

The import procedure will only integrate text documents into the MAXQDA project. PDF files, pictures and audio/video files will be ignored.

25.7 Importing NVivo Projects

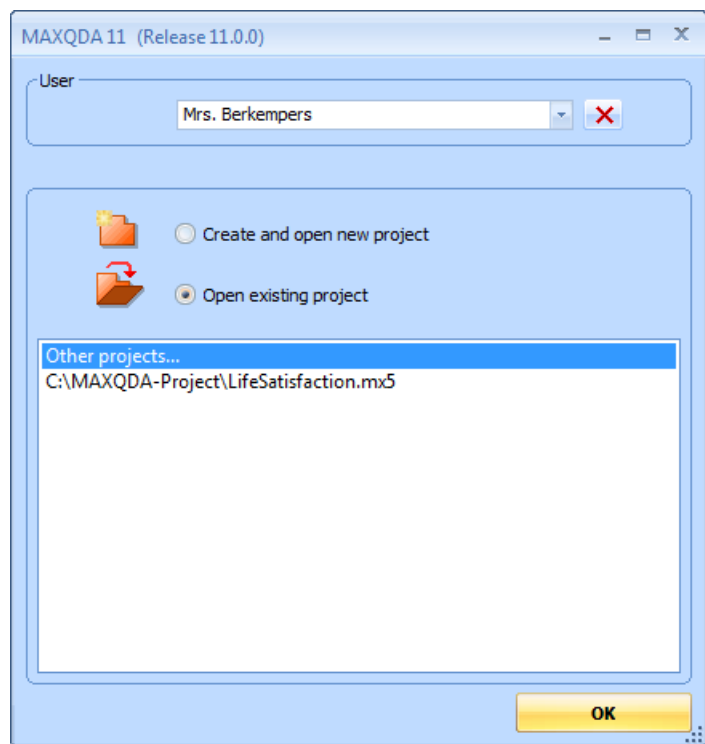
Since version 10, MAXQDA has allowed for the import of NVivo projects (versions 8 and 9).

Requirements

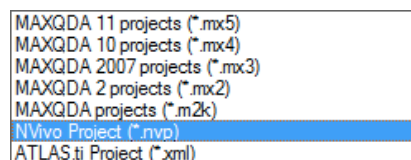
- ☐ MS Word and MS SQL-Server 2008 must be installed (SQL-Server 2008 is installed with the NVivo 9 trial version and can be used with no time limit). For the import of NVivo 8 projects only the SQL Server 2005 that is installed with NVivo 8 is required.
- ☐ You must have administrator rights on your computer.
- ☐ There must be sufficient space in the directory containing the NVivo file to import. During the import process, MAXQDA will create several temporary files which will be deleted after the import.

Import Process

Open MAXQDA and select **Open existing project > Other projects**, then click **OK**. If MAXQDA is already open, you can alternatively choose **Project > Open project**.



Choose the data type **NVivo Project (*.nvp)** and go to the folder which contains the file to import.





After **selecting the NVP file** and clicking **OK**, MAXQDA creates a new project in the same directory and begins the import process (This may take a few minutes to complete.) MAXQDA transfers the document groups, documents, codes and codings as well as memos of the imported project. The code colors will also be imported.

Please wait until MAXQDA displays a message stating that the import process is complete.

Troubleshooting

- ☐ If the NVivo project cannot be opened from the SQL-Server, a message will appear. → Please copy the NVivo project onto a USB flash drive and try again. The USB flash drive should be FAT 32 formatted, the process doesn't work with an external hard drive.
- ☐ If you try to import an NVivo 9 project, but only SQL-Server 2005 is installed, a message will appear. → Please install MS SQL-Server 2008.
- ☐ If MS Word is not installed, a message will appear stating that it is not possible to read RTF data. → Please install MS Word.
- ☐ Please check, that the NVivo file hasn't been renamed after closing in NVivo.

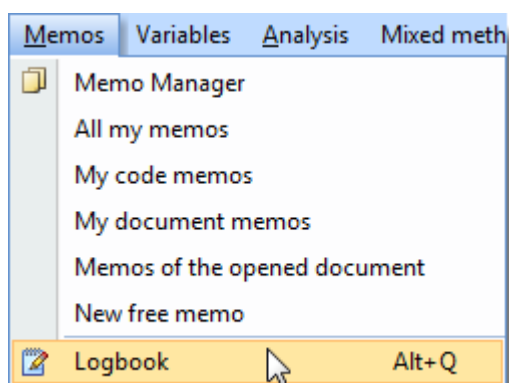
Note: The import procedure will only integrate text documents into the MAXQDA project. PDF files, pictures and audio/video files will be ignored.

26 Special Features and General Options

26.1 The Logbook

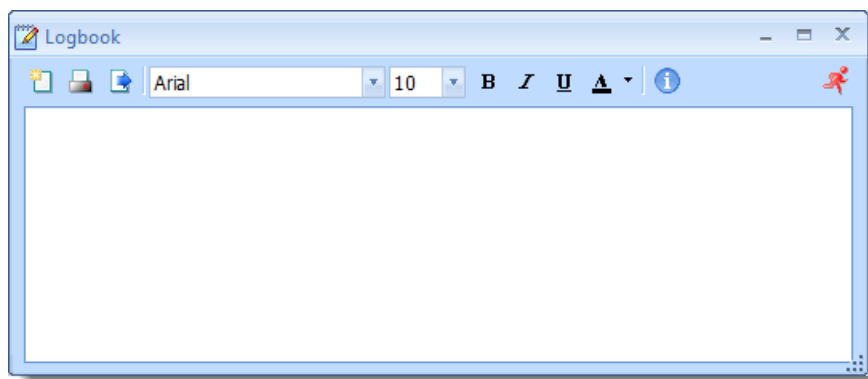
The logbook is a feature in MAXQDA that lets you write a sort of journal to keep track of your analysis work. The term “logbook” is usually used in connection with ocean navigation, which was used to record meaningful happenings and observations, and it can be used in a similar way for your project. The logbook is set up to have the newest entries at the top.

You can open the Logbook from the **Memos** drop-down menu and choosing **Logbook** or by using the shortcut **Alt+Q**.




Calling up the logbook

The logbook window is a simple RTF window with a toolbar, which is fairly self-explanatory, and lets you format the text as you want. You can, for example, edit the font style and size; use bold, underline, and italics; and change the text color. The icons on the far left let you create a new entry and print or export the logbook.



Logbook



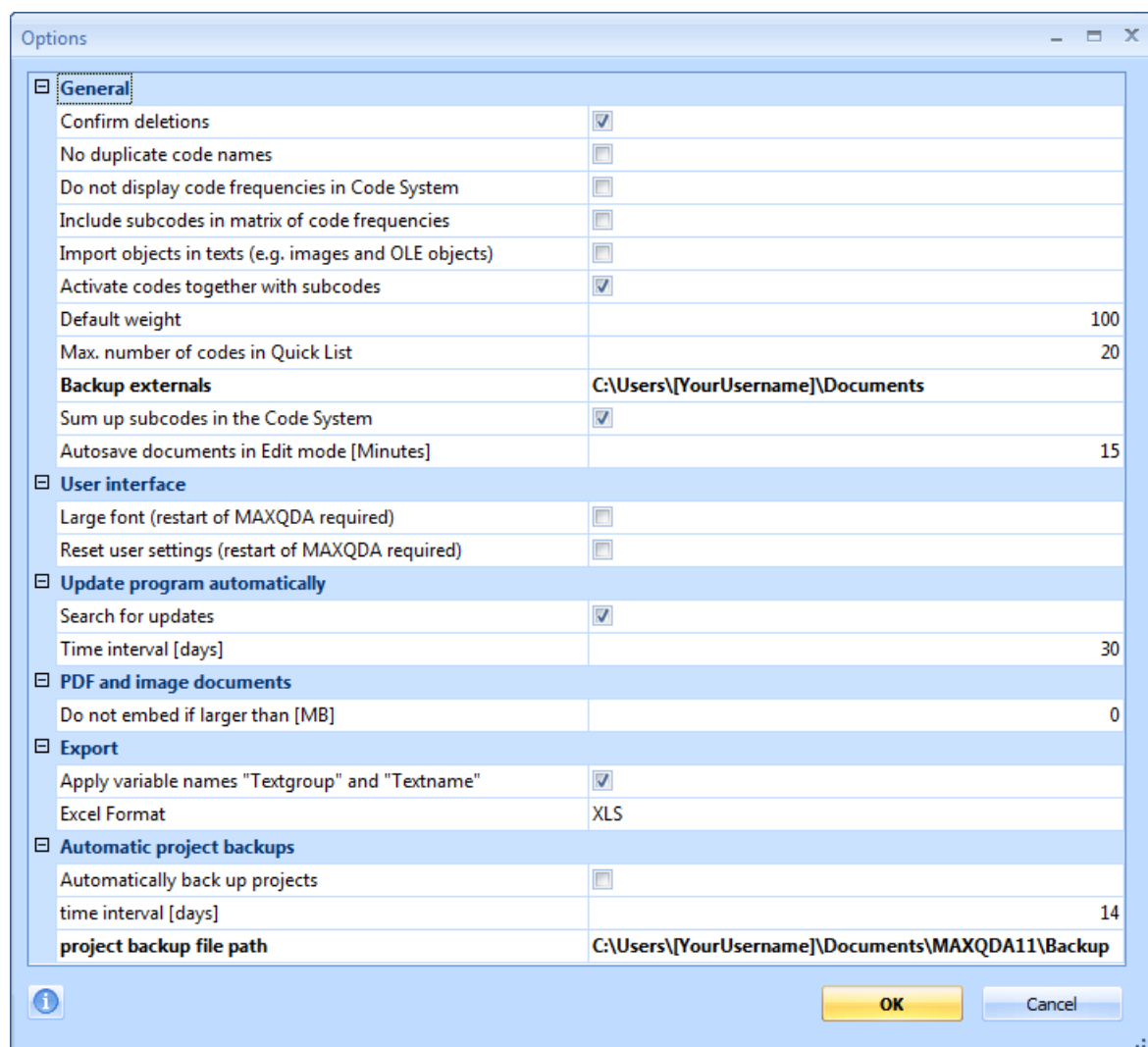
To create a new entry, click on the **New logbook entry**  button on the far left of the toolbar. This automatically inserts a date and time stamp at the top of the page, and you can enter your text directly below it.

26.2 Checking for Updates

You can check for free updates to MAXQDA at any time by selecting **Search for updates** from the ? drop-down menu. The program will then check to see if there is a version online that is more recent than the one installed on your computer. If there is a newer version, you will be asked if you want to download it. These updates include improvements and new features, and since it takes very little time to download the update, it is worth doing. MAXQDA will then restart automatically.

26.3 General Options

You will find the **Options** in the MAXQDA **Project** drop-down menu. The window that appears lets you view and edit your options. Some changes that you make might require a restart of MAXQDA.



Options window

The following settings can be changed:

"General" settings

Confirm deletions

The default setting is to require a confirmation for any deletions you make in your MAXQDA project. This can be important, since deletions cannot be undone. If you delete a document group, for example, you are permanently deleting all of the documents, coded segments, memos, etc. that are connected to it. It is therefore recommended that you leave this option checked.

No duplicate code names

If this option is checked, you will not be able to create more than one code in the "Code System" with the same name. This also applies to subcodes. In some cases, you will want to



allow for duplications (e.g. if you have the main codes “Theory” and “Praxis,” and want to have “Political” and “Economic” as subcodes for each of them).

Do not display code frequencies in Code System

The default setting is for MAXQDA to list the number of times each code has been used. You will see this number just to the right of each code name in the “Code System.” If you do not want or need this, you have the option of hiding these numbers by checking this box.

Include subcodes in matrix of code frequencies

You can create a matrix of code frequencies in the **Project** drop-down menu, by choosing **Reports & export > Matrix of code frequencies**. This matrix shows the number of times each code or subcode was used in the project and can easily be imported for statistical analysis in programs like SPSS. You can calculate correlations between codes or do factor or cluster analysis.

If you activate this option, the codes will all be aggregated to the top level. In other words, the frequency for the parent code “Theory” would include the frequencies of the subcodes “Political” and “Economic.”

Import objects in texts (e.g. images and OLE-objects)

Graphics, especially photos, can be very large and take up a lot of memory. For this reason, you have the option in MAXQDA to link to graphics rather than import them as part of the MX4 project file. If you actually want these graphics to be part of the project file, you can click this option. It is important that you be careful not to let the project file get too big, though.

Activate codes together with subcodes

If this option is checked, subcodes will automatically be activated when their parent code is activated. This also applies then for deactivations.

Default weight

The default weight score for newly-created coded segments is 100, but can be changed here.

Max. number of codes in Quick List

This setting determines the maximum number of codes that can be added to the Quick List, which is found in the “Code” toolbar. The default is 20.

Backup externals

Here you can set the location for all of your externally-linked files to be stored. These include audio and video files, for example, that are too big to be included in the project file.



Image and PDF files might also be stored here, depending on their size and your settings (see below).

Sum up subcodes in the Code System

When this option is turned on, code and subcode frequencies of all compressed codes will be automatically counted and displayed in the “Code System.” If this option is turned off, the displayed code always corresponds to the number of segments that have been encoded using this code. Frequencies of compressed subcodes will not be counted.

“User interface” settings

Large font (restart of MAXQDA required)

The size of the text in the “Document Browser” can be adjusted as you wish, but you can’t control the exact text size in MAXQDA menus and toolbars. With this option, though, you can switch all of these user interface texts to a larger size. MAXQDA will need to restart.

Reset user settings (restart of MAXQDA required)

This is an emergency option of sorts that you can use if you have somehow altered your settings in a way that makes MAXQDA unusable and can’t figure out how to undo these settings. If you check this box, MAXQDA will need to restart, and all of your settings will then be reset.

“Update program automatically” settings

Search for updates

The default setting is for MAXQDA to automatically search for updates. If you don’t want this to happen, you can uncheck this box.

Time interval [days]

This sets the number of days the program should wait between checks for updates. The default is 30 days.

“PDF and image documents” settings

Do not embed if larger than [MB]

Images and PDF files can take up a lot of room in your project file. For this reason, you can set a maximum size for these types of documents. If the files are larger than the given size, they will be linked to instead of imported. The default maximum is 5 MB.



"Export" settings

Apply variable names "Textgroup" and "Textname"

The default is to use the terms "textgroup" and "textname" as variable names. Otherwise they would be switched to "documentgroup" and "documentname," which can make it more difficult to import tables into programs like SPSS and especially SYSTAT.

Excel Format

You can set here whether you want to export Excel files in XLS or XLSX format.

"Automatic project backups" settings

If this option is turned on, projects will be saved in the [Project backup file path](#) after [Time interval \[days\]](#).

27 Keyboard Shortcuts

The following keyboard shortcuts are available in MAXQDA.

General

F1	Opens the MAXQDA help system.
Ctrl+A	Highlights the entire text.
Ctrl+C	Copies the selected text to the Windows clipboard.
Ctrl+X	Cuts out the selected text and puts it in the Windows clipboard.
Ctrl+V	Pastes the selection from the Windows clipboard.
Alt+Q	Opens the logbook.
Ctrl+B	Opens the Code Matrix Browser.
Ctrl+O	Opens the Code Relations Browser
Ctrl+1	Opens and focuses on the "Document System."
Ctrl+2	Opens and focuses on the "Code System."
Ctrl+3	Opens and focuses on the "Document Browser."
Ctrl+4	Opens and focuses on the "Retrieved Segments" window.
Ctrl+5, Ctrl+Shift+5	Focuses on the next/previous window.
Ctrl+F	Opens the context search for the current window.
Ctrl+Shift+F	Opens the color filter for the current window.
Alt+double-click	Inserts a MAXQDA object (e.g. a document or code) into MAX-Maps, if MAXMaps is open.

"Document System"

Double-click	Opens a document.
Shift+double-click	Opens a document in a new tab.
Ctrl+click	Activates or deactivates a document.
F2	Opens a field for renaming a document.
Drag & Drop, Shift+UpArrow Shift+DownArrow	Moves a document or document group to a different place or up and down in the "Document System."
Ctrl+Drag & Drop	Creates a copy of the document.
Ctrl+T	Creates a new document and opens it for editing in the "Docu-



	ment Browser.”
Ctrl+Shift+T	Opens the dialog window for importing a document at the top of the “Document System.”
Alt+T	Opens the dialog window for importing a document into the selected document group.
Ctrl+M	Creates a memo for a document.

“Code System”

F2	Opens a field for renaming the code.
Drag & Drop, Alt+UpArrow, Alt+DownArrow	Makes a code into a subcode of another code.
Shift+Drag & Drop, Shift+UpArrow, Shift+DownArrow	Moves a code without it changing levels or becoming a subcode.
Ctrl+Drag & Drop	Creates a copy of a code.
Ctrl+Click	Activates or deactivates a code.
Alt+N	Creates a new code on the activated level.
Ctrl+Shift+B	Opens the code browser.

“Document Browser”

Ctrl+Shift+E	Toggles Edit Mode.
Alt+L	Codes the selected segment with the most recently-used code.
Ctrl+W	Opens the dialog window for creating a new code, which will be used to code the selected segment.
Ctrl+Q	Codes the selected segment with the code shown in the Quick List.
Ctrl+I	Codes the selected segment with a newly-created code named after the first 32 characters of the selected segment (in-vivo coding).
Ctrl+L	Inserts an internal link at the location of the selected segment. The location it is linked to is set by highlighting another segment in that document or another one in the project and hitting Ctrl+L again.
PgUp, PgDn, Alt+mousewheel	Move to the next/previous page of a PDF document.



Pos1, End	Moves to the first/last page of a PDF document.
Ctrl+Mousewheel, Ctrl+Plus, Ctrl+Minus	Zooms in or out of the document.
Ctrl+Tab, Ctrl+Shift+Tab	Jumps to the next/previous tab.
Ctrl+F4	Closes the tab.

Retrieved Segments Window

Ctrl+Shift+L	Opens the “Overview of coded segments.”
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“Media player” Toolbar

Ctrl+P	Activates/deactivates media player.
F3	Inserts a time stamp.
F4	Plays or pauses the media file.
F5	Jumps to previous time stamp.
F6	Jumps to next time stamp.

List of Timestamps

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.

“Overview of variables” – “Data editor”

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+O	Switches to variable view.

“Overview of variables” – Variable View

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+O	Switches to “Data editor” view.
Ctrl+N	Creates a new variable.
Del	Deletes a variable.
Ctrl+B	Transforms a variable into a binary variable.



Ctrl+S	Transforms a variable into a string variable.
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"Overview of coded segments"

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+Q	Opens the autocode window.

"Overview of memos"

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+N	Creates a new free memo.

"Overview of links"

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.

Lexical Search – Search Results

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+Q	Opens the autocode window.
Ctrl+P	Opens the options window.

Intercoder Code-Specific Results Table

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.

MAXDiction Dictionary

Ctrl+T	Changes the category system view.
Tab	Changes the entry field between the category system and the word table.
Ctrl+O	Opens the dialog window for opening a dictionary.
Ctrl+I	Opens the dialog window for adding a dictionary.
Ctrl+S	Opens the dialog window for saving a dictionary.
Ctrl+E	Opens the dialog window for exporting a dictionary.
Ctrl+N	Creates a new category or search term.



Del	Deletes a category or search term.
Ctrl+Alt+N	Deletes all categories and their contents.

MAXDictio Word Frequencies

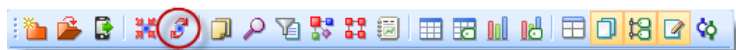
Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.

MAXDictio Coder

Ctrl+H	Opens the table in HTML format in the standard internet browser.
Ctrl+E	Opens the dialog window for exporting the table.
Ctrl+Shift+R	Transforms the selected entries into variables.
Ctrl+R	Shows the search results.

28 Quick Troubleshooting Tips

If the results of a retrieval don't match your expectations, the first thing you should always do is reset the retrieval functions by clicking the appropriate icon in the "MAXQDA standard" toolbar.



Icon for resetting the retrieval functions

This function takes you back to the standard OR retrieval settings, removes any weight filters, and undoes all activations in the "Document System" and "Code System." If you are still having problems after resetting and starting again, go to the menu entry **Project > Options** drop-down menu and check the box next to **Reset user settings**. You will then be prompted to restart MAXQDA, which will have all of its original settings after the restart.

A selection of other quickly-remedied problems is listed in the following table:

Problem	Solution
DOC/X documents can't be imported.	A Microsoft Office Installation for Windows 2003 or later is needed for this function. Please save your file as a RTF file and import it again.
A document can't be imported.	Are you sure that it is not open in another program? Open it in your word processor, save it as an RTF file, close it, and try importing it into MAXQDA again.
Your imported document isn't shown.	To view the document, you need to double-click on it in the "Document System." It will then appear in the "Document Browser."
You want to import a document into a document group, but MAXQDA says that the document can't be imported.	It could be that the document is still being used by another program (e.g. Word). Make sure to close the document in these other programs and then try again.
Your documents aren't shown in the "Document System."	It could be that you've chosen to collapse certain document groups. Click on the + symbol in front of a document group to view the documents in it.
No segments are shown in the "Retrieved Segments" window even though you've activated documents and codes.	Make sure you haven't accidentally chosen an advanced retrieval function (e.g. Near or Followed by). Check to make sure you haven't accidentally turned on a weight filter. Both of these things can be checked in the status bar at the bottom of the MAXQDA window.



Some of your codes aren't shown in the "Code System."	It could be that you've collapsed certain codes, hiding their subcodes. Click on the + symbol to show subcodes for a code.
You accidentally coded a segment incorrectly.	<p>Click on the Undo button in the "Code" toolbar. A list of recent coding actions will appear, with the most recent action at the top. To undo your most recent coding, click on the first string in the list.</p> <p>Or: Right-click on the coding stripe and choose Delete.</p>

Tip: If you aren't able to solve your problem, don't hesitate to contact our online support. You can contact them at www.maxqda.com/support/online-support.



29 Technical Data and Information

29.1 Limitations and technical information

MAXQDA sets very few limits.

Note: Please note that several thousand documents, codes and coded segments may reduce performance. The size of a document and the amount of coded segments *per* document may influence the performance, too.

Text length:	No set limit, but it isn't recommended that you import texts larger than 1 MB
Size of a coded segment:	max. 64 KB
Text formats:	RTF, DOC/X, PDF
Image formats:	JPG, GIF, TIF, PNG
Audio- and video formats	Everything that can be played on your computer
Number of projects:	No limit
Number of document groups:	No set limit
Number of documents:	99,999, but check performance before working with more than 1,000 documents
Number of codes:	No set limit, but check performance before working with more than 1,000 codes
Number of coded segments	No set limit, but check performance before working with more than 10,000 segments
Code System levels	Max. 10
Strings in MAXQDA:	Usually 64 characters
Numerical data:	10 characters
Number of variables	No set limit, but more than 250 is not recommended

29.2 File Management

The MAXQDA program file (maxqda.exe) is found in the "MAXQDA11" folder after it has been installed, unless you changed the name of the installation folder.

MAXQDA creates the following file types:

MAXQDA.INI	Configuration file
.MX5	MAXQDA 11 project file
.MX4	MAXQDA 10 project file
.MX3	MAXQDA 2007 project file
.MX2	MAXQDA 2 project file
.M2K	MAXQDA 1 project file
.LOA	Saved formula files (<u>L</u> ogical <u>A</u> ctivation)
.SEA	Saved search files (<u>S</u> E <u>A</u> rch file)
.MEX	Teamwork export file (<u>M</u> AX <u>E</u> Xport)
.TXT	Exported table file
.RTF	Exported texts, coded segments, and memos
.MTR	Exported "Code System"

29.3 System Requirements

- ❑ **Operating System:** Microsoft Windows XP, Vista, 7, 8
(in Windows XP you need .NET Framework 3.5 to run MAXQDA 11)
- ❑ **Processor:** 1,5 GHz, recommended: 2 GHz or more with 2 cores or more
- ❑ **RAM:** 1 GB RAM, recommended: 2 GB or more
- ❑ **Monitor:** 1.024 x 600, recommended: 1.280 x 800 or more

Note: If you are working with challenging projects and/or large media files adequate computer hardware is recommended. This also applies for newer operating systems or for the use of virtual machines on a MAC.

For some features of MAXQDA Microsoft Word 2003 has to be installed on the computer (Import of DOC/X files, Smart Publisher Export).