



MAXQDA 12

Reference Manual

A decorative graphic in the bottom left corner features the number '12' in a large, blue, sans-serif font. The number is centered within a circular swirl of overlapping lines in various shades of blue, green, and orange. The background of the entire page is a stylized, layered mountain range in shades of blue and grey, with a white sky above.

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1 Welcome

MAXQDA 12 is a high-performance program for professional social science oriented data analysis – ideal not only for researchers but also for students and for teaching at universities and high schools. MAXQDA is used in a variety of disciplines: the social sciences, education, health sciences, the humanities, economics, marketing, and many others. In short, MAXQDA is the ideal software for those who require a program for the effective management and systematic evaluation of texts, documents and all kinds of media data.

MAXQDA 12 is a result of more than 25 years of continuous development that began with MAX for DOS in 1989. MAXQDA 12 is groundbreaking as it is the world's first QDA software that provides the same functionality for Windows and Mac and allows you to switch effortlessly between the two platforms. The user interface is almost identical; aside from the ever-present Mac menu bar at the top of the screen that is unknown in Windows. The menu, icons, shortcuts and functions are nearly identical, eliminating the need for two different user manuals.

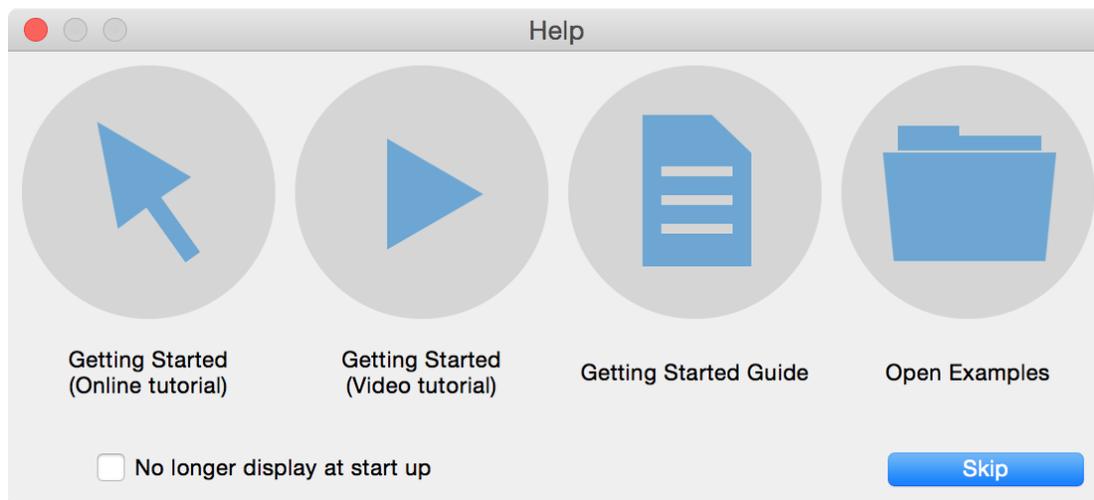
This guide provides a detailed overview of the features of MAXQDA. The “Getting Started Guide” offers a brief introduction. The manual explains all the functions and features of MAXQDA rather than following the logic of learning the program. Further help can be found on the website www.maxqda.com, including online tutorials, textbook references and information on the annual user conference in Berlin, the “MAXQDA International Conference” (MQIC).

In our continuous effort to improve and troubleshoot MAXQDA, we are always interested in your feedback and suggestions on how the program could be enhanced. Simply send us an email or watch for issues of interest in the MAXQDA forum and propose your contributions.

2 MAXQDA Screens and Menus

2.1 Starting the Program

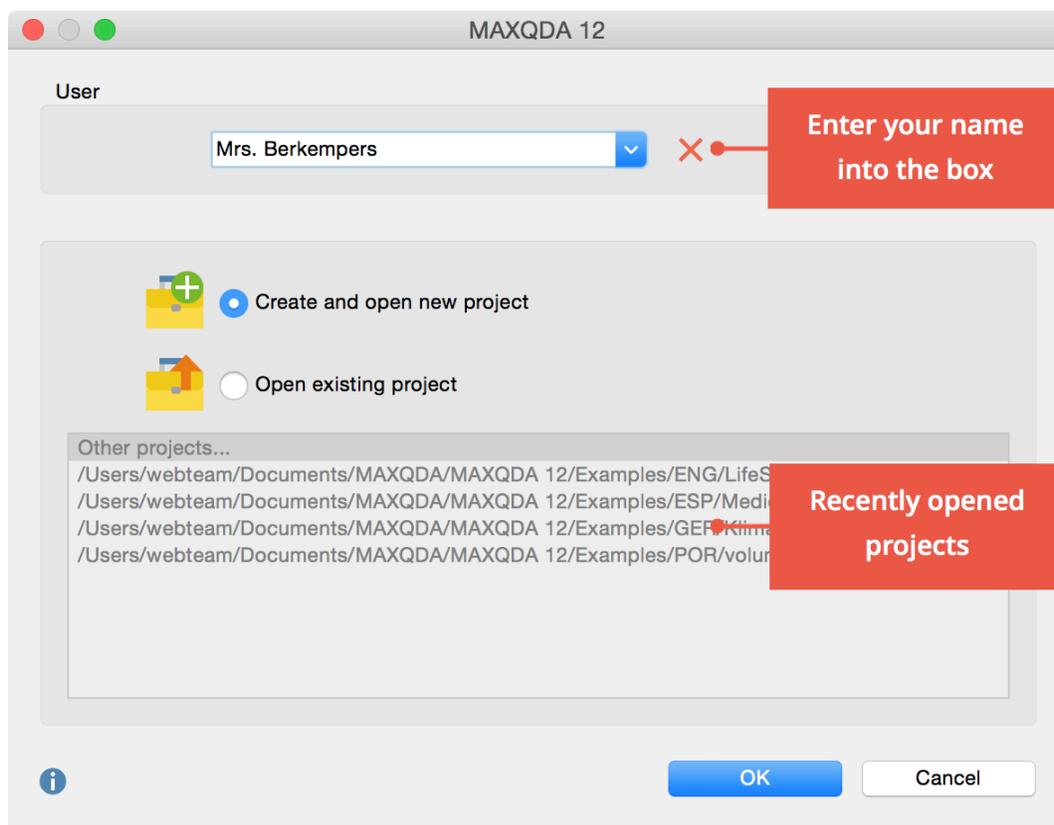
After opening MAXQDA, a window will appear with the MAXQDA logo and then the following welcome dialogue, which allows direct access to instructions to help get you started in MAXQDA:



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

A click on the **Open Examples** button 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.

After clicking **Next**, the following start and login window appears. If you selected **Open Examples**, the startup window appears immediately.



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 12 have the extension MX12. If your computer system hides file extensions, you can identify data by the MAXQDA symbol and by the file type "MAXQDA 12 Project File." 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.

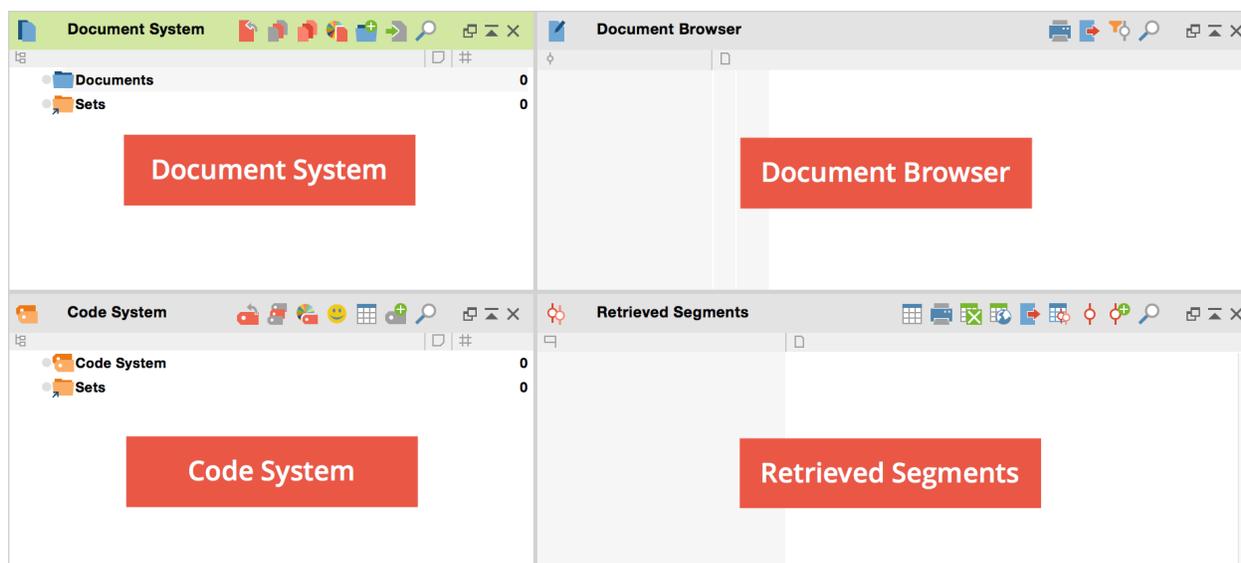
2.2 The MAXQDA Interface and the Four Main Windows

After opening or creating a new project, you will see the MAXQDA interface:

- 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, PDF files, tables, 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, subcodes and code memos along with the number of associated coded segments.
- 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).

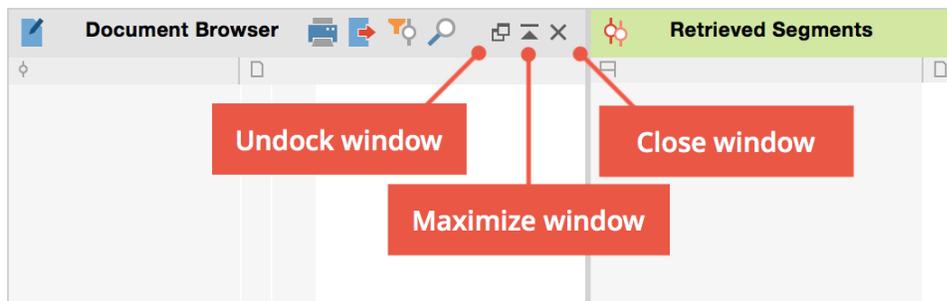
Small Toolbars in the Windows

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 search in associated window



- ☐ undocks the window
- ☒ maximizes the window to the largest possible size
- ✕ closes the window

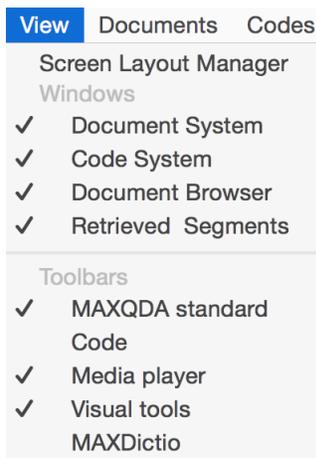


Small toolbar within a window

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 by selecting **View > Windows** in the main 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:



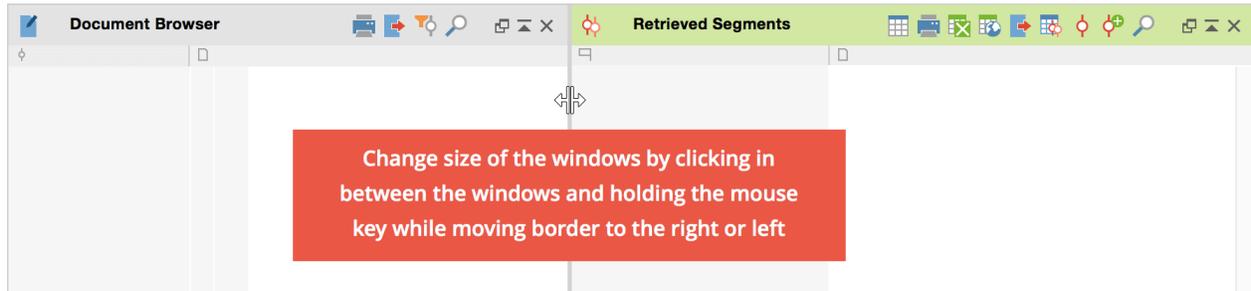
3. You can close the windows by clicking on the appropriate icon ✕ in the upper-right hand corner of each window. Next to the close icon, you also have the option of clicking to maximize the window to its largest possible size.

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 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.

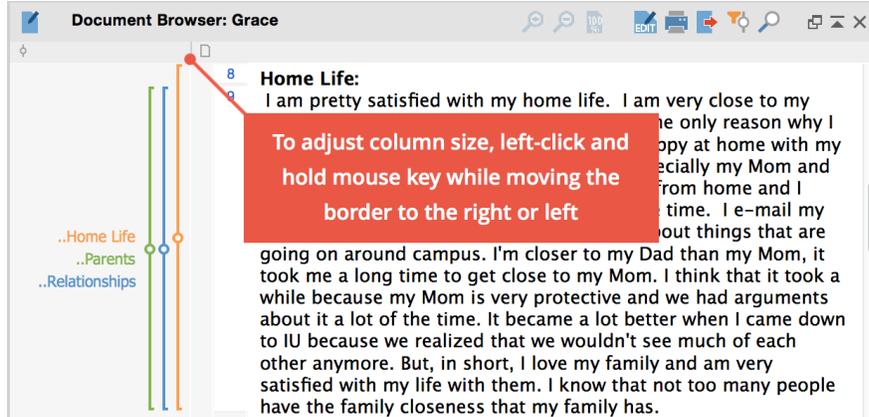
The size of each window in comparison to the others can be adjusted as you wish by clicking with the left mouse button on a border and dragging it in the appropriate direction.



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

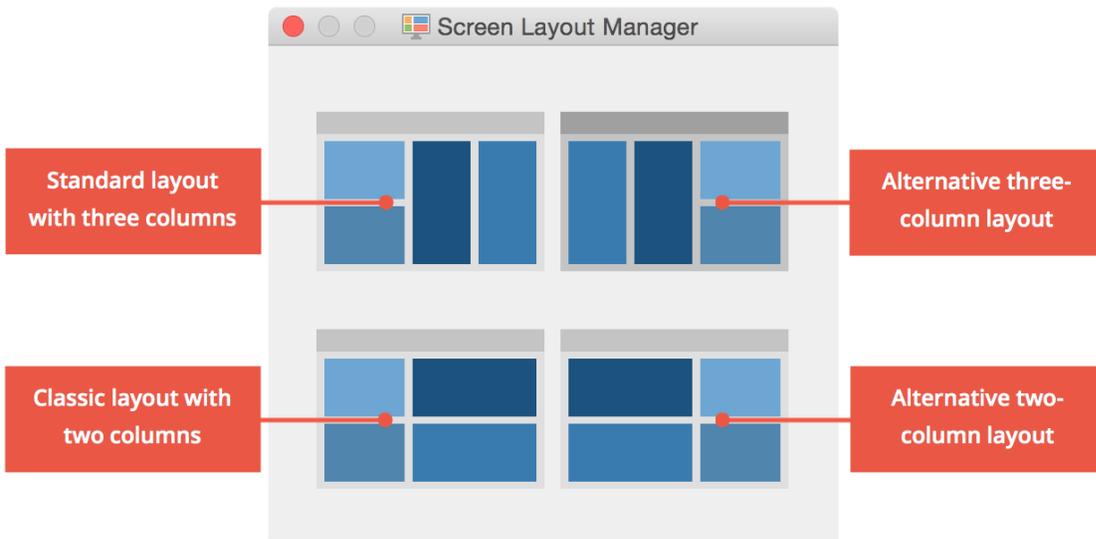
With a screen width of over 1,440 pixels, MAXQDA 12 uses a three-column layout by default. This takes advantage of the widescreen format of modern monitors better than the traditional four-window layout, which has long been a characteristic of MAXQDA. You can easily change back to the traditional four-window 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 **View > 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 for wide screens. The “Document Browser” is found in the middle and “Retrieved Segments” in the third column on the far right.

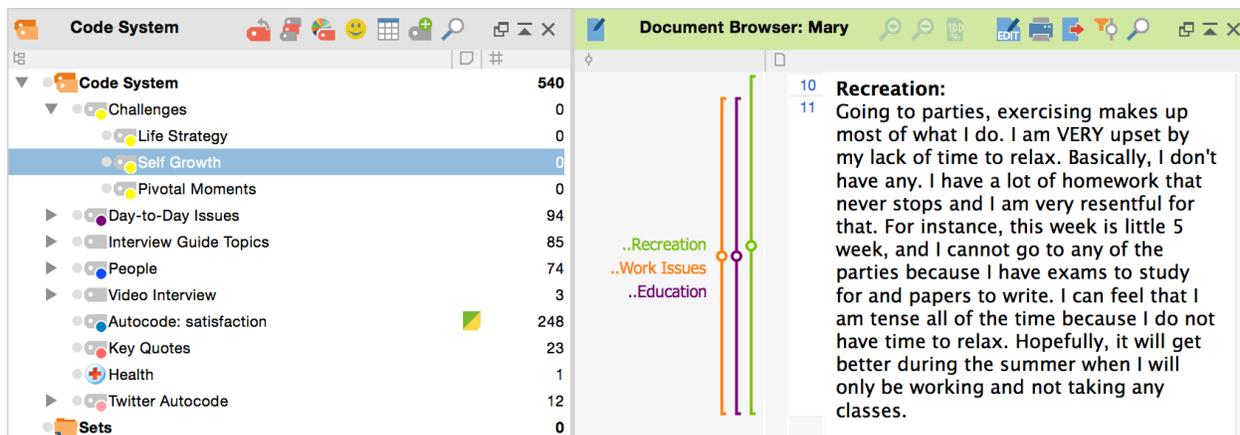
Top right: Alternative three-column layout with the “Document System” and the “Code System” on the right side.

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

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 larger. 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 main menu options 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 admin settings for teamwork options on a project.

View Menu

This menu allows you to hide or view each of the four main MAXQDA work area windows. Furthermore, you can open the Screen Layout Manager to arrange the four main windows.

The 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.

Documents Menu

In this menu, you can import documents, create a new document group, or a new document. A special function also allows you to import structured document forms. Furthermore, you can import data from Twitter, SurveyMonkey and MAXQDA's Web Collector as well as focus group transcripts.

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

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's Statistics and Graphics functions, which can be called up for both document and code variables.

Analysis Menu

This menu offers options related to the lexical search and retrieval functions for coded segments (called "Coding Query"). Furthermore, you can access the functions to create and display summaries for coded segments.

The Analysis menu also offers access to the intercoder agreement functions and the memo functions, especially the "Overview of memos" window. This overview includes all memos (document memos, document group memos, code memos, in media memos, and free memos) and can be filtered for various criteria.

Mixed Methods Menu

This menu includes various functions for the combination of qualitative and quantitative data using documents and variables. The activation via variables allows you to activate documents or document groups based on their assigned variable values, 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 several visualization function options: MAXMaps, the tool for qualitative modeling; the Code Matrix Browser (documents by codes); the Code Relations Browser (code co-occurrence); 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 an appropriate document is opened in the “Document Browser”; the tag cloud visualises the 50 most-frequent words of all text, PDF and table documents and can be adjusted with a stop list.

Stats Menu (optional)

This menu is only available if you are running a license for “[MAXQDA Analytics Pro](#)”. “Stats” is a module, which offers frequently used descriptives and inferential statistic functions, like frequency tables, crosstabs, one-way analysis of variance, correlation and creating scales.

MAXDictio Menu (optional)

This menu is only available if you are running a license for “[MAXQDA Plus](#)” or “[MAXQDA Analytics Pro](#)”. “MAXDictio” is a module, which offers many functions for word frequencies, word combinations, and other tools for text exploration as well as quantitative content analysis based on a dictionary.

Help Menu

Here you will find the Getting Started Guide in PDF format, which may be helpful to print out. You will also find detailed help and links to the online and video 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.

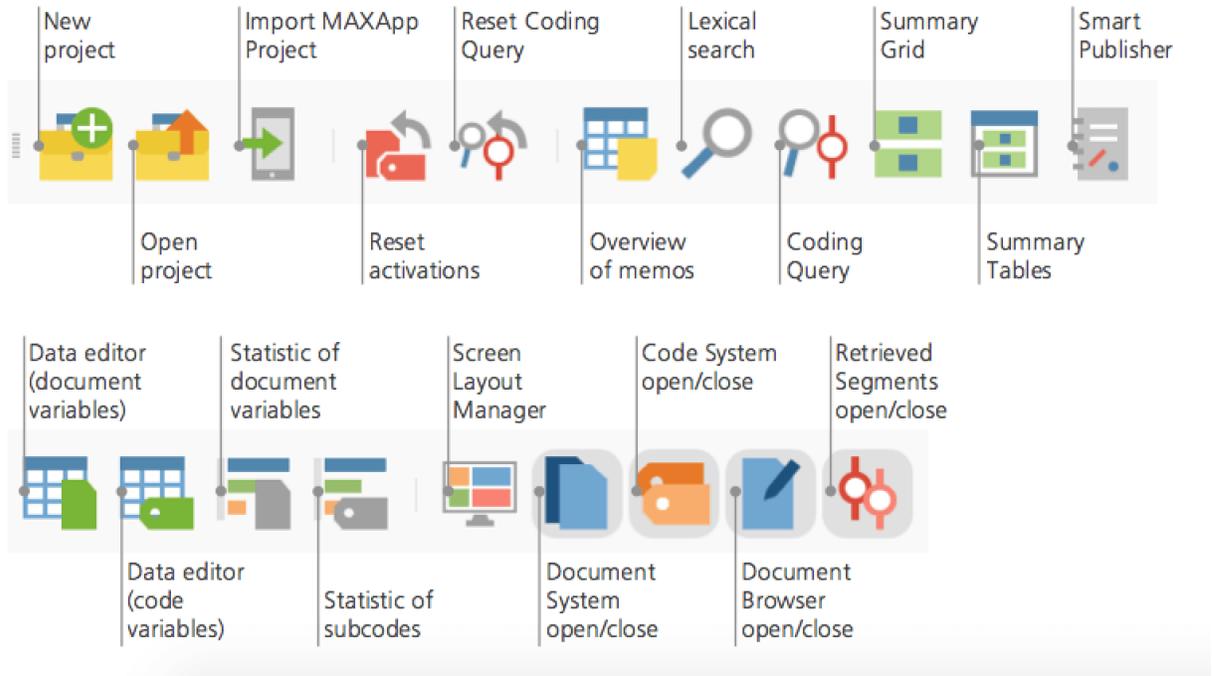
2.4 The Toolbars

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:



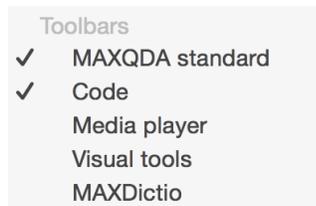
“MAXQDA standard” toolbar

The icons represent the following:



Overview of the buttons in the "MAXQDA standard" toolbar

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



The "View" menu

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



"Code" 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 “**Visual tools**” toolbar has seven symbols, giving you quick access to the mapping tool MAX-Maps as well as the visualization functions “Code Matrix Browser,” “Code Relations Browser,” “Document Comparison Chart,” “Document Portrait,” “Codeline,” and “Tag cloud.”



“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

Position Toolbars on the Screen

All toolbars can be positioned anywhere on the screen. 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 available in the “Document System” window.

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
-  **Activate by document variables** – allows activation of documents based on their variable values.
-  **Display only activated documents**
-  **Activate by color** – allows activation of documents based on their assigned color.
-  **New document group** – creates a new document group directly above the document group, displayed in the highest position.



➔ **Import document(s)** – allows you to insert text, PDF files, spreadsheets, images and media files into the project.

🔍 **Display search toolbar** – allows you to search for a specific document name.

🗑 **Undock window**

⏏ **Maximize window**

✕ **Hide window**

Documents and Document Groups

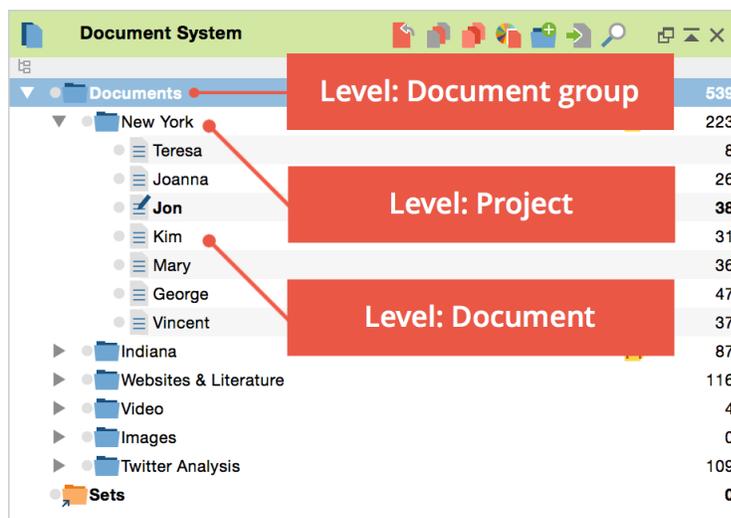
In order to better organize your documents, it is possible to create document groups. In MAXQDA, it is, however, not absolutely necessary that each document is put in a document group. Documents can simply be left in the root of the “Document System” window.

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

Example: In an interview-based study on kindergartens in which 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 “Kindergarten study”) and then assigned to one of three 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:

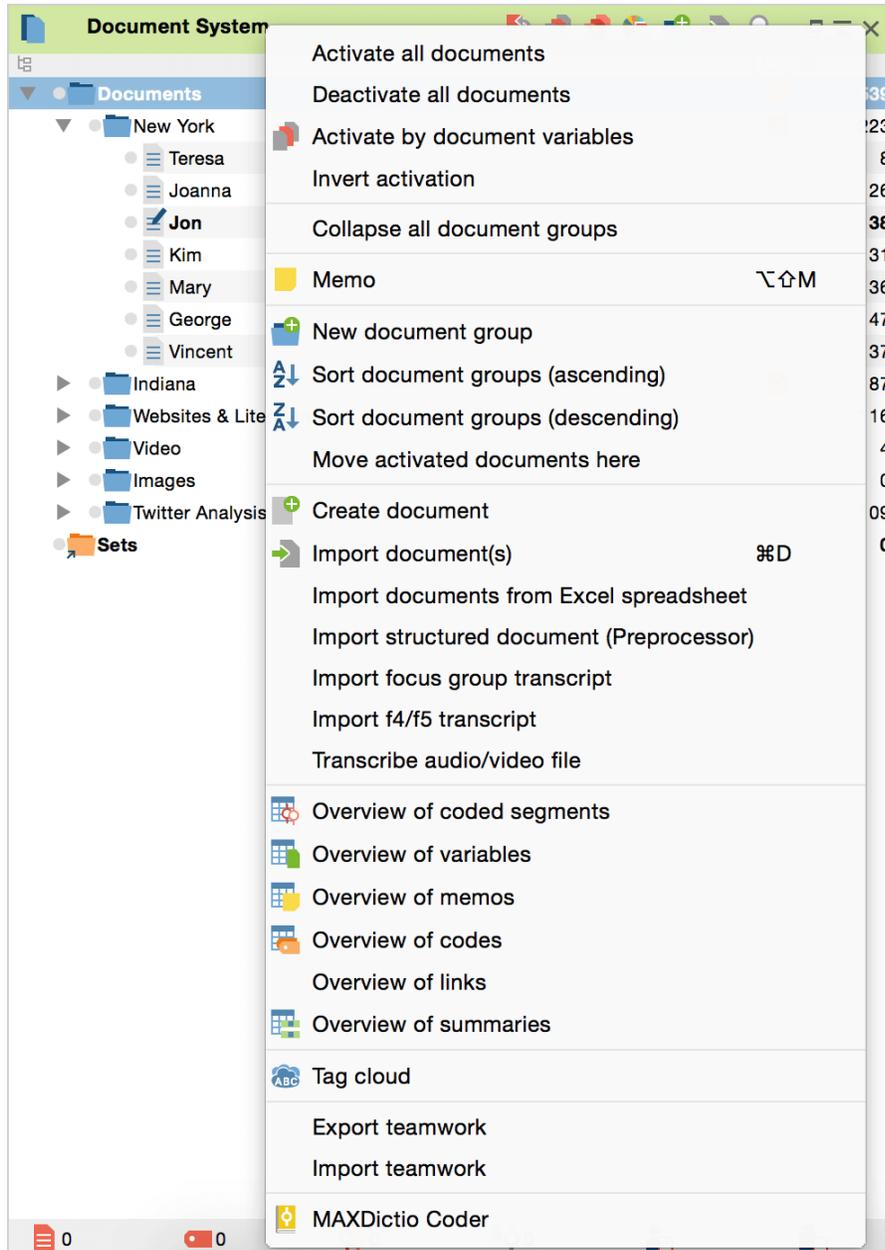
- the project level
- the document group(s) level
- the document level



Three levels in the “Document System” window

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”-entry. By right-clicking on its 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.

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



Activate by document variable – allows you to create logical conditions based on the existing document variable values for selecting and activating documents.

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.

Collapse all document groups – collapses all document groups for a better overview. Thus, the individual documents of the document groups will not be visible.

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

New document group – creates a new document group.

Sort document groups (ascending) – sorts all document groups in ascending alphabetical order.

Sort document groups (descending) – sorts all document groups in descending alphabetical order.

Move activated documents here – moves all activated documents to the top level of the “Document System” window. This function is only visible if at least one document is actually activated.

Create document – inserts a new, empty text or table document with a default name into the “Document System.”

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”. When choosing this function, a standard file dialog appears to choose a file for import. The documents can be in TXT, RTF, DOC/X, PDF, JPG, GIF, TIF and PNG format. You can also select media files; however, due to their size, they are not imported into the project file, but stored externally and assigned to a text document.

Import documents from Excel spreadsheet – allows import and automatic coding of cases as documents from a table structure, which is very useful for survey data.

Import structured documents (Preprocessor) – facilitates the import of a pre-structured text that may marked passages for automatic coding during import. The text may also be split up into several documents during import.

Import focus group transcript – imports a transcript of a focus group interview, which will automatically be coded.

Import f4/f5 transcript – imports a transcript, created with the software f4/f5. After selecting the transcript, MAXQDA automatically asks for a media file to assign to the transcript.

Transcribe audio/video file – 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.

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

Overview of variables – shows the data editor of the document variables for all documents in the project.

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

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

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

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

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

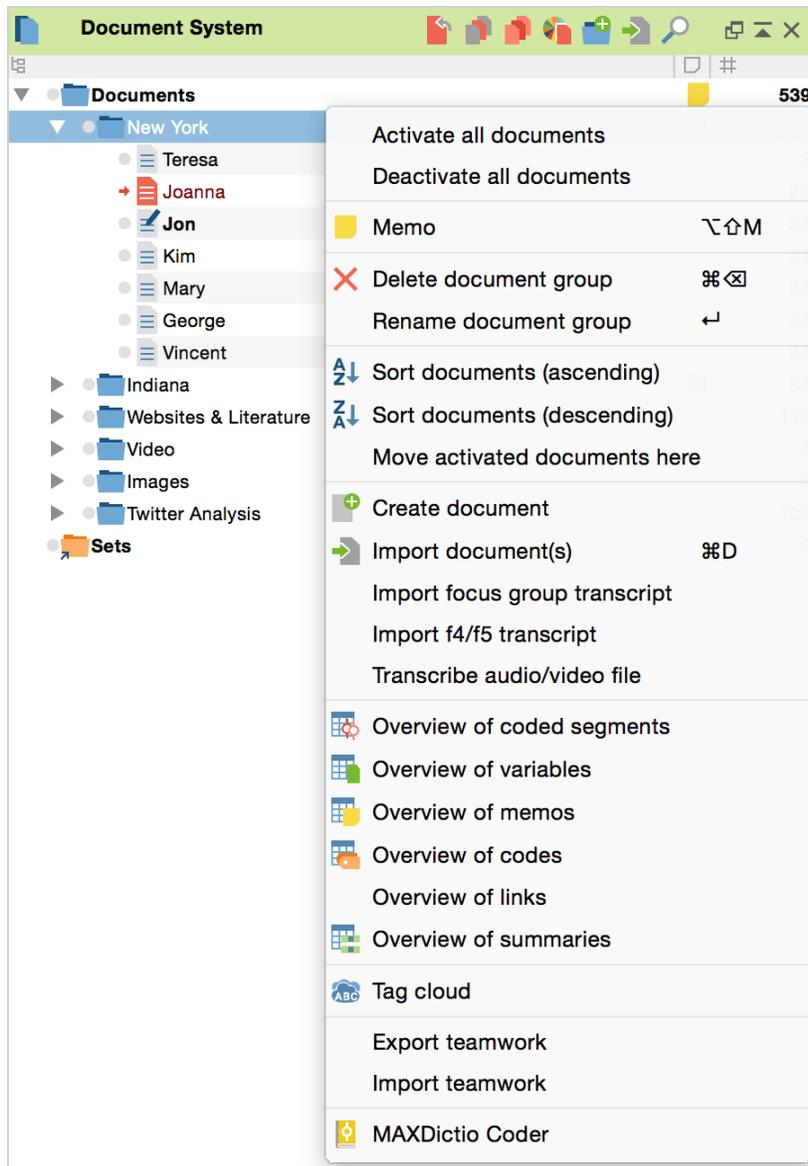
Export teamwork – allows export of all coded segments, memos, summaries and variables of the project.

Import teamwork – allows export of all coded segments, memos, summaries and variables of the project.

MAXDictio Coder – opens the MAXDictio Coder (will be displayed only if MAXQDAplus, which contains the MAXDictio functions, is installed).

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(s) level, which offers functions that only affect that specific chosen document group.



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

The following options are available in the context menu of a document group:

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

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

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

Delete document group – deletes the document group, including all documents, coded segments, memos, summaries 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.

Sort documents (ascending) – sorts all documents in the document group in ascending alphabetical order.

Sort documents (descending) – sorts all documents in the document group in descending alphabetical order.

Move activated documents here – moves all activated documents to this document group, thus resorting the “Document System” accordingly. This function is only displayed if at least one document is actually activated.

Create document – inserts a new, empty document with a default name into the document group. The document is 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. When choosing this function, a standard file dialog appears to choose a file for import. The documents can be in TXT, RTF, DOC/X, PDF, JPG, GIF, TIF and PNG format. You can also select media files; however, due to their size, they are not imported into the project file, but stored externally and assigned to a text document.

Import focus group transcript – imports a transcript of a focus group interview, which will automatically be coded.

Import f4/f5 transcript – imports a transcript, created with the software f4/f5. After selecting the transcript, MAXQDA automatically asks for a media file to assign to the transcript.

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.

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

Overview of variables – shows the data editor of the document variables for all documents in the document group.

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

Overview of codes – lists all codes used in one of the documents of the document group in table form.

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

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

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



Export teamwork – allows export of all coded segments, memos, summaries, and variables of all documents in the document group. The exported file can be imported in a project on a different computer. This function enables you to work in a team and divide the work on the documents of a document group among team members.

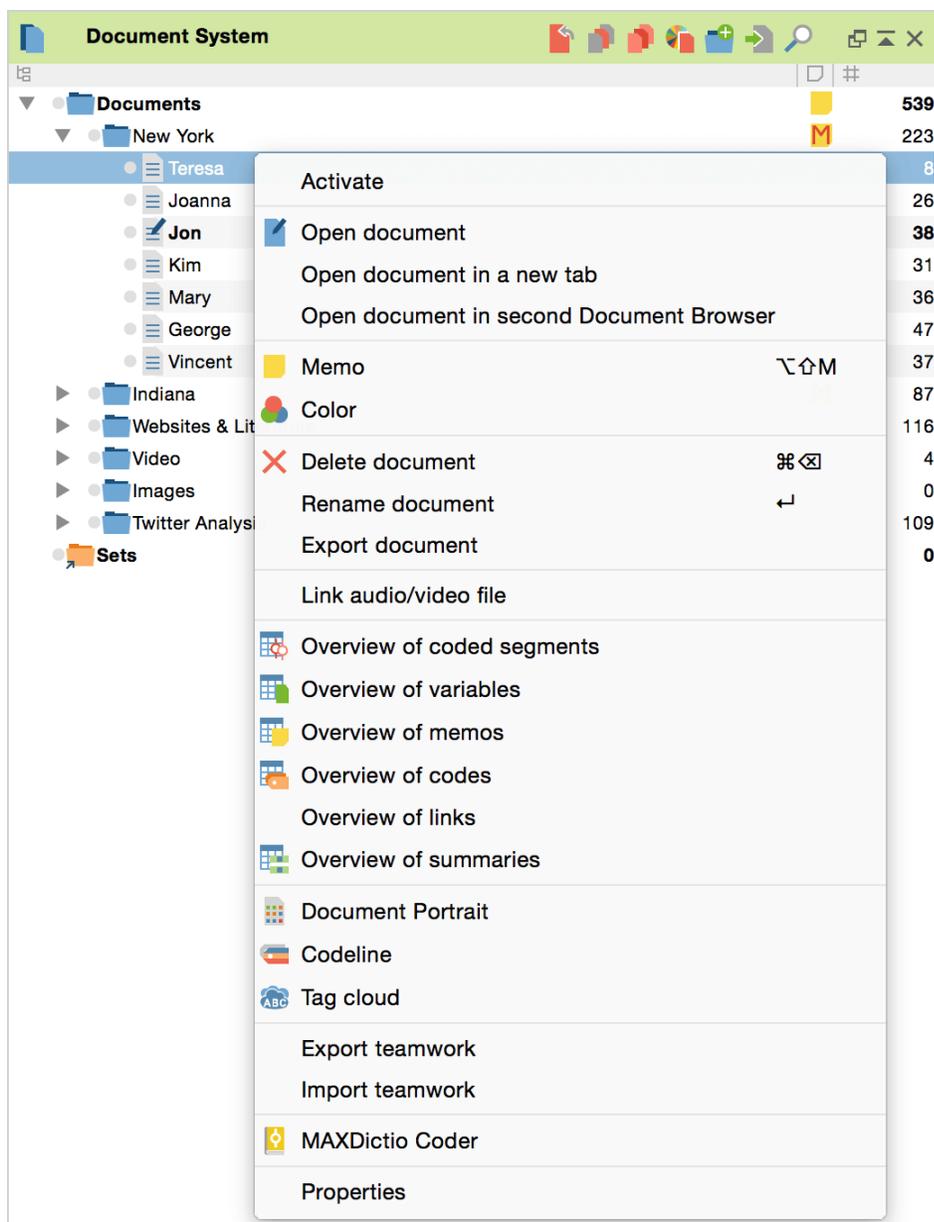
Import teamwork – allows import of all coded segments, memos, and variables to the document group.

MAXDictio Coder – opens the coding tool MAXDictio (will be displayed only if MAXQDAplus, which contains the MAXDictio functions, 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 is similar to the document group context menu, but it does not contain the options to import documents.

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 chosen document.



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 which is currently opened in the “Document Browser” is indicated in the “Document System” with a special symbol (document with a pen).

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



Open document in second Document Browser – opens the document in an undocked "Document Browser". The document which has last been focused is indicated in the "Document System" with a special symbol (document with a pen)."

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. MAXQDA only completes the deletion after confirming that you do indeed wish to carry out the action.

Rename document – allows you to modify the document name.

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

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

Overview of variables – shows the data editor of the document variables for the selected document.

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

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

Overview of summaries – lists all summaries of 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.

Export teamwork – allows for the export of all coded segments, memos, summaries, and variables for the document. The exported file can be imported in a project on a different computer. This function enables you to work in a team and divide the work on a single document among team members.

Import teamwork – allows for the import of coded segments, memos, summaries, and variables for the document of an earlier exported file.

MAXDictio Coder – opens the MAXDictio Coder (will be displayed only if MAXQDAplus, which contains the MAXDictio functions, is installed).

Properties – opens a window with all the properties of the document, which can then be edited (e.g. whether or not the document should be opened in read-only mode). You can also link a media file to the corresponding document (e.g. an audio file with the corresponding transcribed interview) to either code the transcript or the media file itself.

2.6 Context Menus and Toolbar in the “Document Browser”

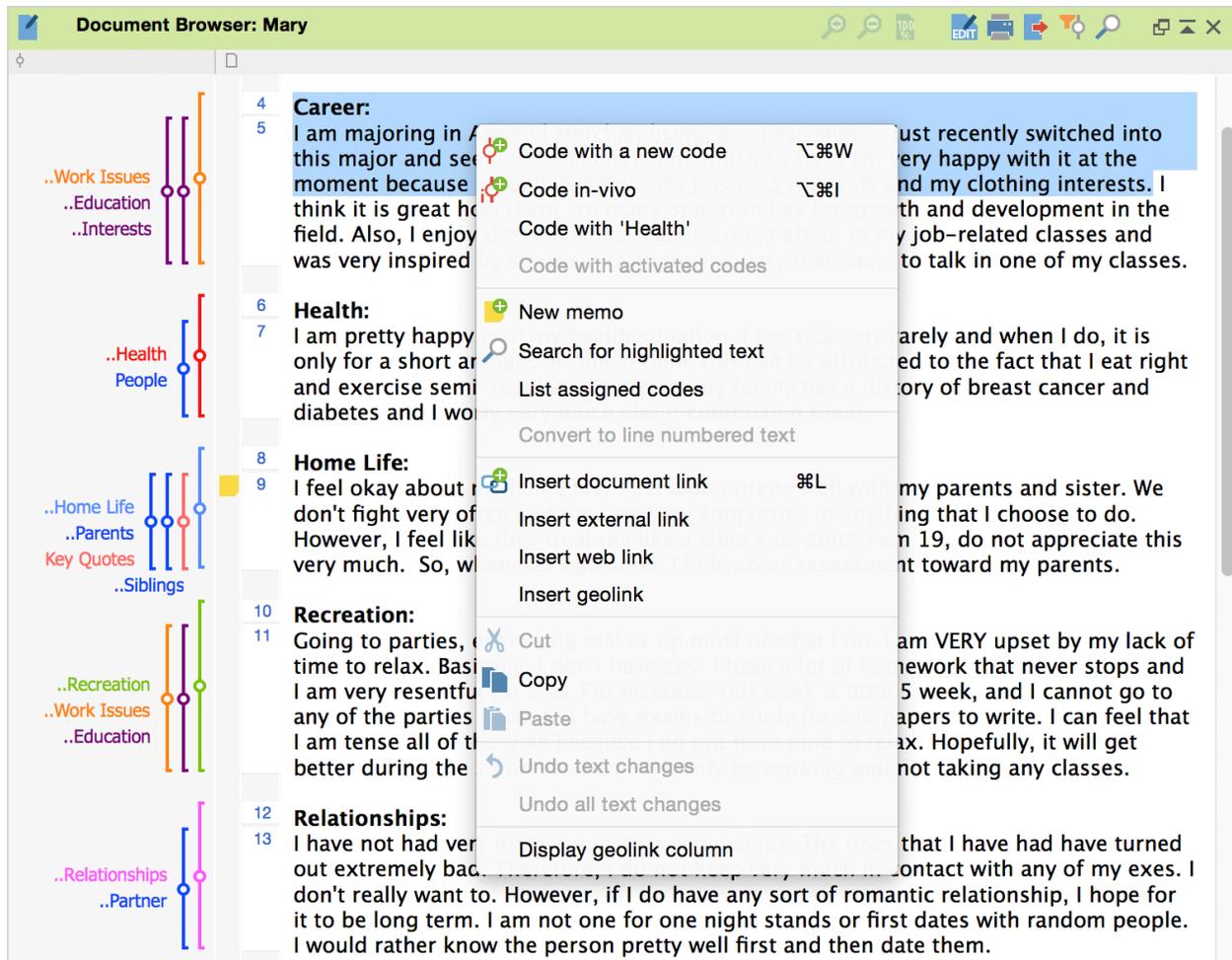
Toolbar

The “Document Browser” is MAXQDA's main work window: This is where you can code 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:

-  **Edit mode on/off** – allows you to edit the text of a text or table document.
-  **Print document** – allows you to print the document displayed in the window, optionally along with memo symbols and coding stripes.
-  **Export displayed 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.
-  **Display search toolbar** – allows you to search within the open document.
-  **Undock window**
-  **Maximize window**
-  **Hide window**

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 these file formats do not permit modification. Some functions are also unavailable for spreadsheets.

Code with a new code – codes the highlighted text or section of an image with a new code.

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 recently used code.

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

New memo – creates a memo for the highlighted text.

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

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

Convert to line-numbered text – cuts each line after a pre-defined number of characters into a new line, which will be treated as a new paragraph. Since this function changes the text altogether, it is only available in Edit mode. The function is not available for texts in read-only mode; the write protection needs to be disabled to use it.

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

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

Insert weblink – allows the insertion of a link to a website.

Insert geolink – allows to insert a geolink; a file dialog will appear to open and import a KML file, that contains the geo information.

Remove link – deletes a link from the selected text.

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

Copy – copies the highlighted text as in Microsoft Word.

Paste – pastes the contents of the clipboard as in Microsoft Word.

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).

Display geolink column – displays the geolink column next to the memo and code visualization column on the margin of the “Document Browser.” All geolinks are visualized with a symbol in this column.

Display timestamp column – displays the timestamps column on the margin of the “Document Browser”. This option is only visible if a media file is linked to the document.

2.7 Context Menus and Toolbar in the “Code System”

Toolbar

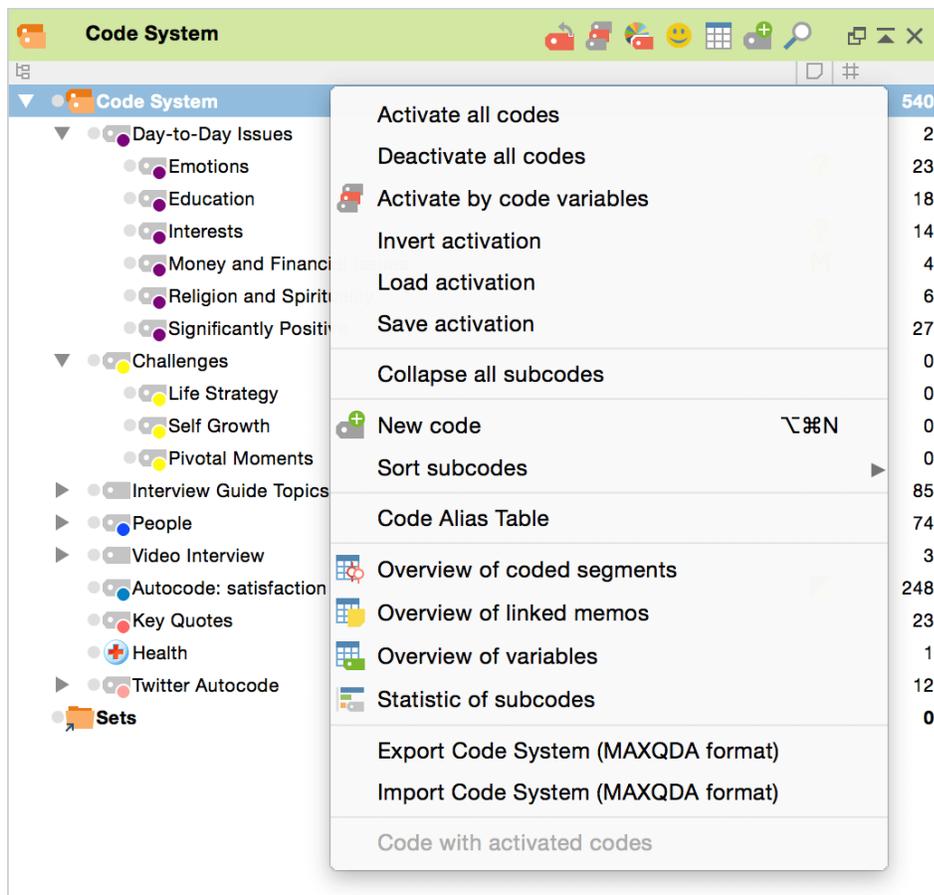
The toolbar at the top of the “Code System” window offers quick access to the most commonly-used functions in this window. These functions are:



-  **Reset activations** – resets current code activations.
-  **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.
-  **Display emoticon only** /  **Display codes and emoticon** – reduces the display in the “Code System” window to emoticones.
-  **Change to table view** /  **Change to standard view** – switches between tree view, and table view of the code system.
-  **New code** – adds new code into the code system.
-  **Display search toolbar** – allows you to search for a specific code.
-  **Undock window**
-  **Maximize window**
-  **Hide window**

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” (except focus group participant codes).

Activate by code variables – allows activation based on code variable values.

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

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

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

Collapse all subcodes – to the better overview all subcodes are collapsed, so that only the codes of the uppermost level are visible.

New code – creates a new top level code in the code system.



Sort codes – sorts all codes in the upper level of the “Code System” hierarchy by code frequency or in alphabetical order.

Move activated codes here – moves all activated codes to the top level of the “Code System” window. Subcodes of activated codes will keep their position as subcodes as long as they are not activated. This function is only visible if at least one code is actually activated.

Code Alias table – lists all codes in a table view where you can edit the code alias of each code.

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

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

Overview of variables – shows the data editor of the code variables for all codes in the project.

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

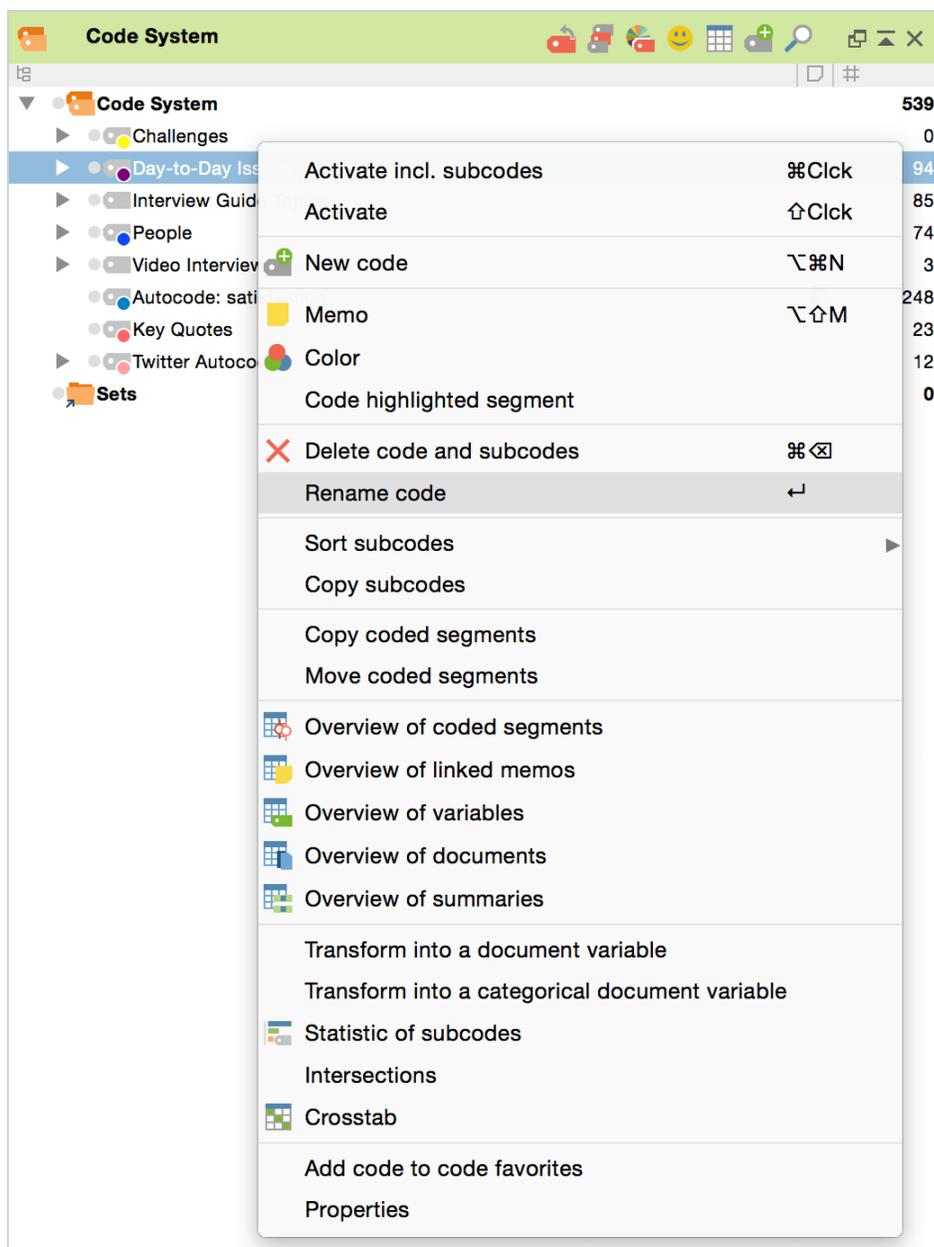
Export Code System (MAXQDA format) – exports and saves the “Code System” as a file with the extension MTR (MAXQDA Tree). This function can be used for transferring code system from one project to another.

Import Code System (MAXQDA format) – import a “Code System” from a previously created MTR file.

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

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 incl. subcodes / Deactivate incl. subcodes – the code including all its subcodes are activated or if it is activated, it is deactivated together with the subcodes.

Activate/Deactivate – only the code itself, without its subcodes, is activated.

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

Memo – creates a memo for the current code.



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

Code highlighted segment – codes the currently highlighted text or image segment in the “Document Browser” or the highlighted audio/video clip in the “Multimedia Browser” with the current code.

Delete code and subcodes – 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 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.

Sort subcodes – sorts all subcodes of the current code by alphabetical order or by code frequency.

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

Move activated codes here – inserts all activated codes as subcodes of the chosen code. Subcodes of activated codes will keep their position as subcodes as long as they are not activated. This function is only visible if at least one code is actually activated.

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 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.

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

Transform into a document 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 document 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).

Statistic for 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.

Crosstab –

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

Properties – opens

2.8 Context Menus and Toolbars in the “Retrieved Segments” Window

Toolbar

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

 **Change to table view** /  **Change to standard view** – switches from list view to table view and back.

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

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

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

 **Export retrieved segments** – the segments can be exported in text format RTF (text format), or as tables in XLS or HTML format. Memos attached to coded segments, other codes assigned to the segment, 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

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 an info box with information about that segment. The info boxes tell you in which document group, document, and position the segment is found and which code was assigned to it.

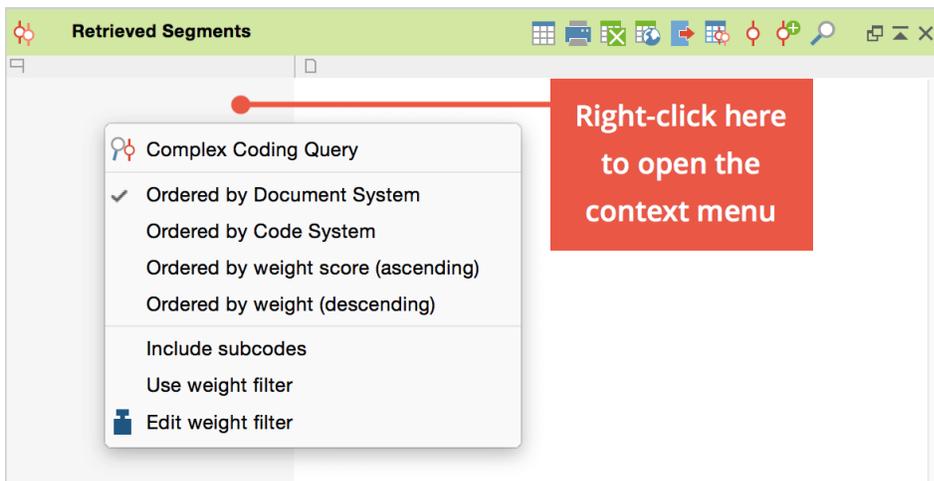


Clicking on the yellow info box opens the original document in the “Document Browser” and highlights the document segment

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:

Complex Coding Query – opens the Complex 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 (ascending/descending)– sorts retrieved segments according to the weight assigned to them.

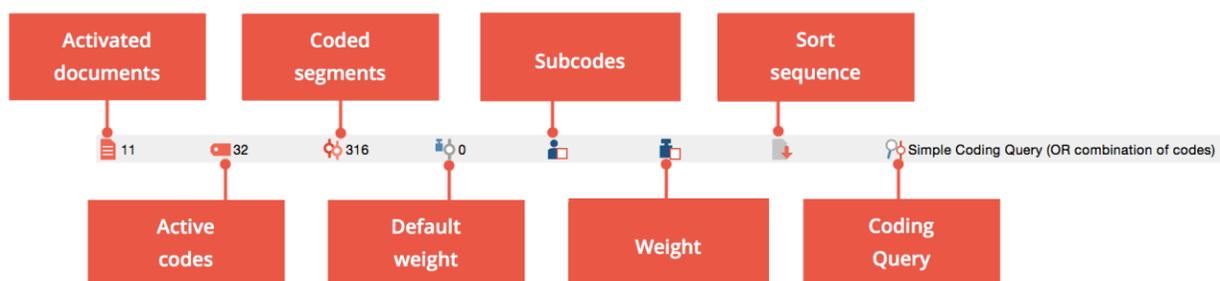
Include subcodes – automatically includes all subcodes in the retrieval for each code activated in the “Code System.”

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.

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

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

 **Include Subcodes** – displays the current status of the retrieval: If there is a checkmark on the icon, the subcodes are included in the retrieval; if no checkmark is displayed, the subcodes are not included. The icon is interactive! **Click the icon** in order to determine whether subcodes will be included or not.

 **Use Weight Filter** – displays the current status of the weight filter for the retrieval: If there is no checkmark 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 a checkmark 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! **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! **Click the icon** to toggle between the various sorting options.

 **Coding Query** – displays the selected mode of retrieval, such as “Simple Coding Query” or “Overlapping.” The icon is interactive! **Click the icon** to call up the **Complex Coding Query**.

3 Use of Table Overviews in MAXQDA

3.1 The Toolbar in Table Overviews

There are many situations in MAXQDA where table overviews 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 nearly all of these toolbars:

 **Only activated documents** – Displays only the rows in which activated documents appear. The symbol can only be clicked when at least one document is activated.

 **Only activated codes** – Displays only the rows in which activated codes appear. The symbol can only be clicked when at least one code is activated.

 **Filter** – Turns the filter for the columns on and off. The symbol can only be clicked when a filter has been set for at least one column. Set the filter by right-clicking on the column header.

 **Delete filter** – Deletes the defined filter for all columns of the table.

 **Search** – Turns the search toolbar for the table on and off.

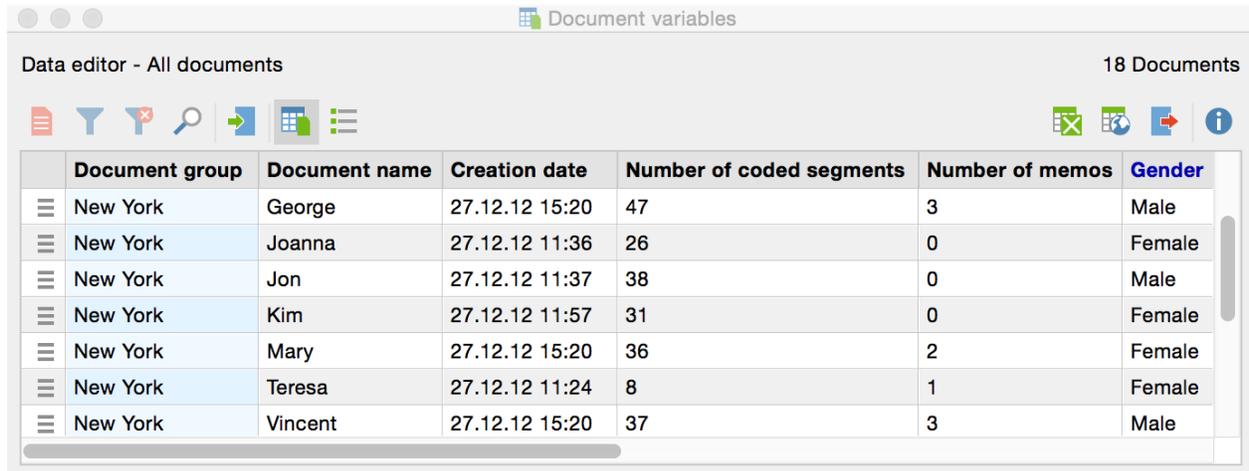
 **Excel table** – shows the current table in an Excel document. This does not happen within MAXQDA, but can be printed out or saved as a separate file.

 **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 diverse formats including Excel (XLS/X) or Website (HTML) and opens the file. Unlike the two functions above, you can choose the file name and location. This exported file is also no longer connected to your project file.

3.2 Managing Table Overviews

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	George	27.12.12 15:20	47	3	Male
	New York	Joanna	27.12.12 11:36	26	0	Female
	New York	Jon	27.12.12 11:37	38	0	Male
	New York	Kim	27.12.12 11:57	31	0	Female
	New York	Mary	27.12.12 15:20	36	2	Female
	New York	Teresa	27.12.12 11:24	8	1	Female
	New York	Vincent	27.12.12 15:20	37	3	Male

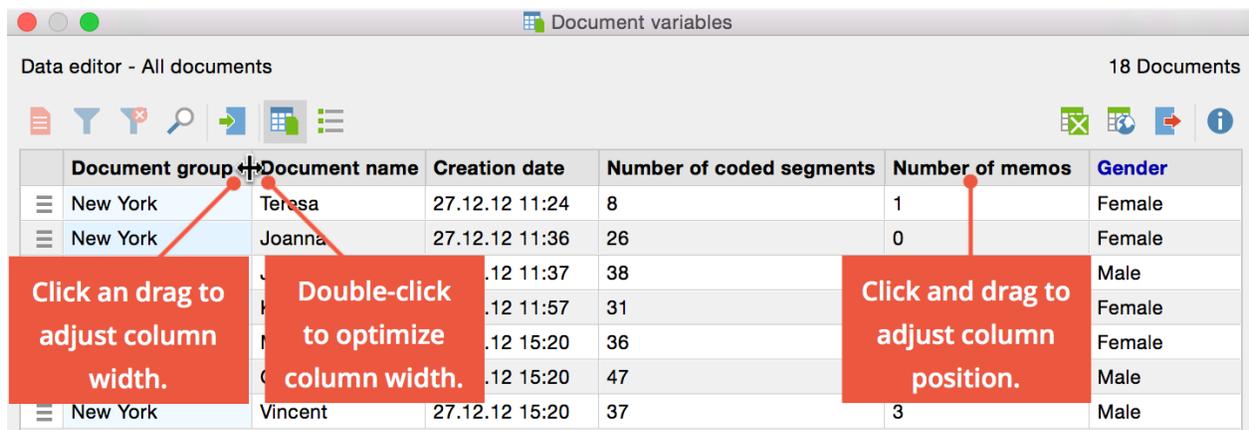
Table view of an example project's document variables

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
- **Number of coded segments** – the number of coded segments in the document
- **Number of memos** – the number of memos in the document

Adjusting column width and position

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	Number of coded segments	Number of memos	Gender
	New York	Teresa	27.12.12 11:24	8	1	Female
	New York	Joanna	27.12.12 11:36	26	0	Female
	New York	Jon	27.12.12 11:37	38	0	Male
	New York	Kim	27.12.12 11:57	31	0	Female
	New York	Mary	27.12.12 15:20	36	2	Female
	New York	Teresa	27.12.12 11:24	8	1	Female
	New York	Vincent	27.12.12 15:20	37	3	Male

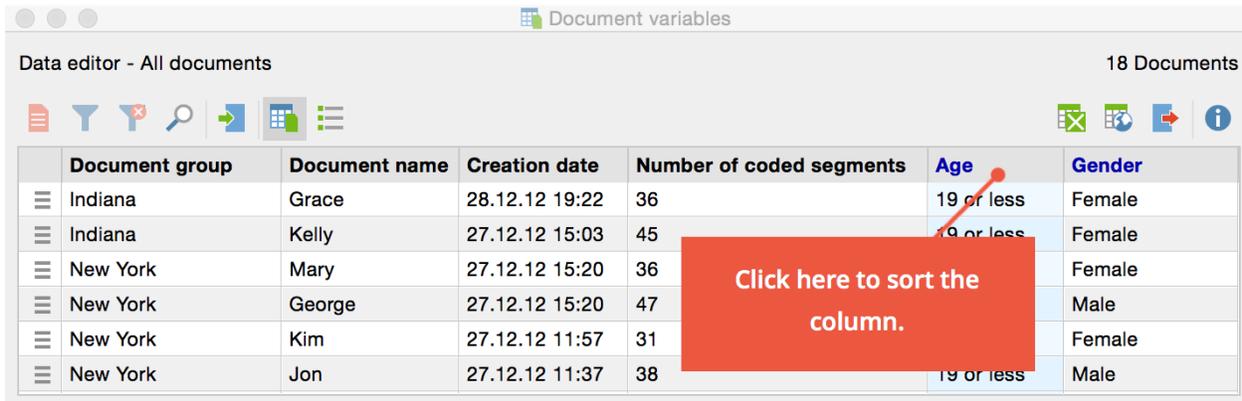
Adjust column width and position

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.

Sorting Tables

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



Document variables

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	Document group	Document name	Creation date	Number of coded segments	Age	Gender
☰	Indiana	Grace	28.12.12 19:22	36	19 or less	Female
☰	Indiana	Kelly	27.12.12 15:03	45	19 or less	Female
☰	New York	Mary	27.12.12 15:20	36	19 or less	Female
☰	New York	George	27.12.12 15:20	47	19 or less	Male
☰	New York	Kim	27.12.12 11:57	31	19 or less	Female
☰	New York	Jon	27.12.12 11:37	38	19 or less	Male

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 inside 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.

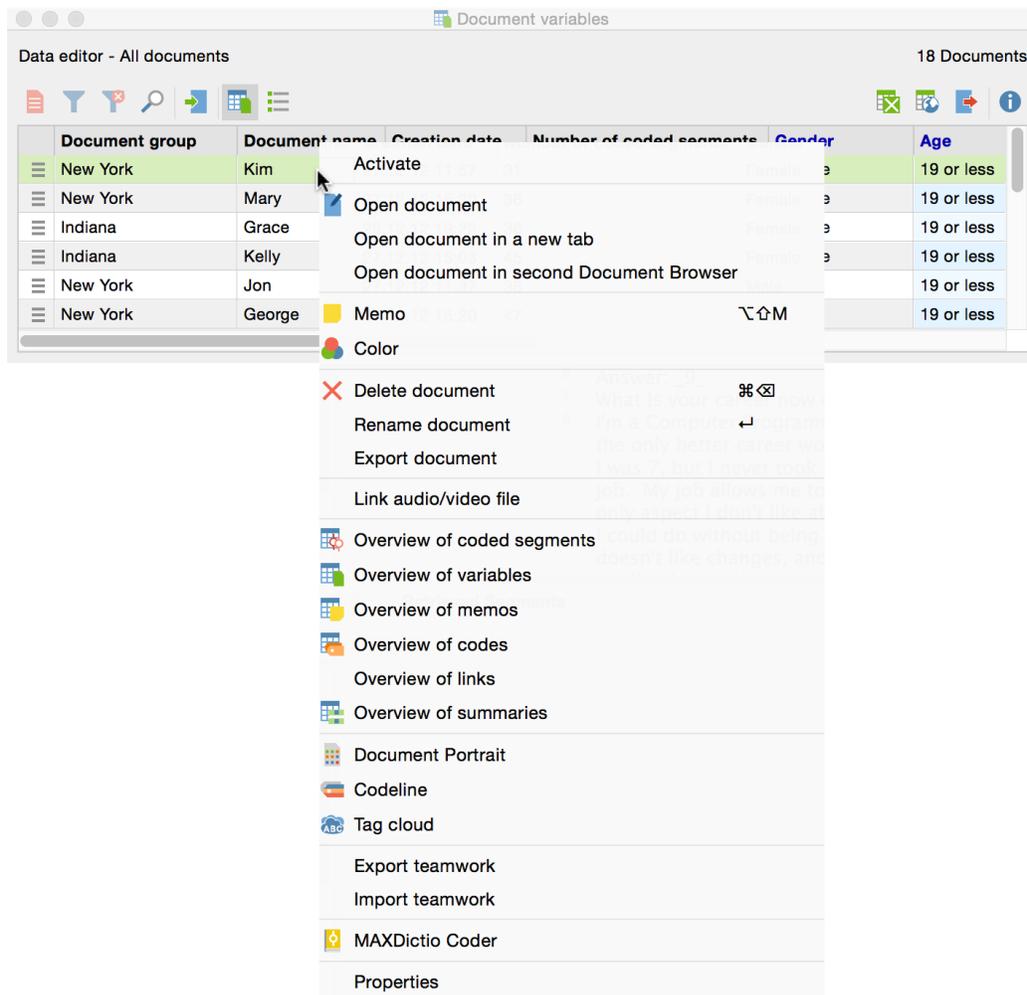
Selecting Rows in the Table

The table contents can also be selected and copied into the Windows clipboard. The selection of one or multiple rows, or a section of the table, is done as follows: A single cell can be selected by simply clicking on it, and additional cells can be added to the selection by holding the Ctrl key (Windows) or Command key (Mac) and a section of the table can be selected by clicking the first and last rows to be included while holding down the Shift key. In MAXQDA, the selected sections of a table are highlighted in green.

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.

Context Menus for Tables

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.

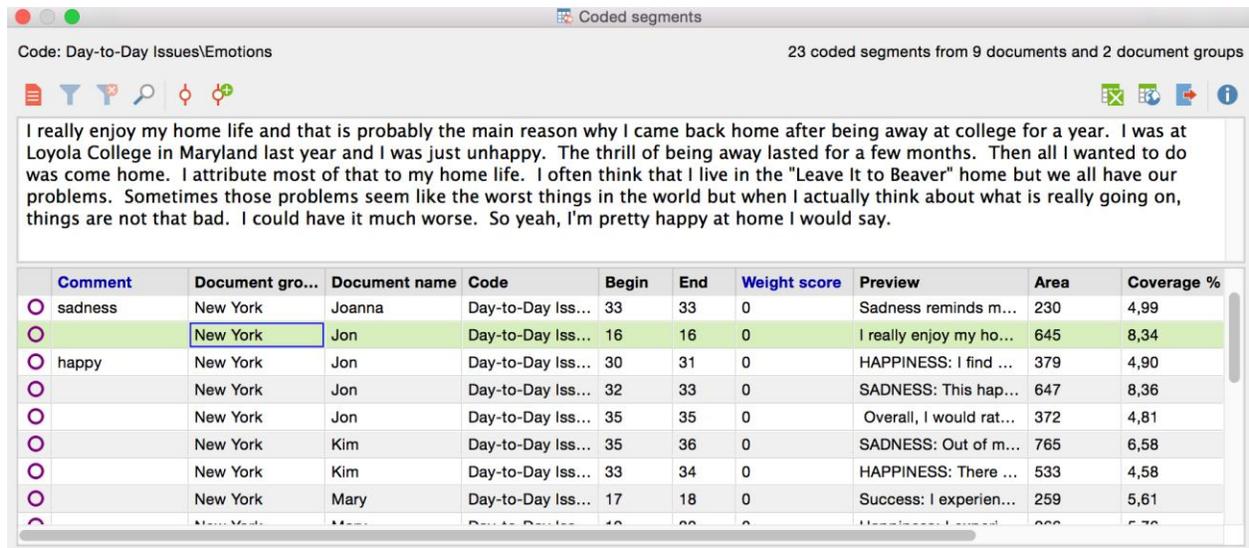


Context menu in the document variables table

Table overviews with detailed view

The "Overview of coded segments" differs from, for example, from the "Overview of variables" in that it is divided into two parts. The lower section is used just as in other tables. The upper section

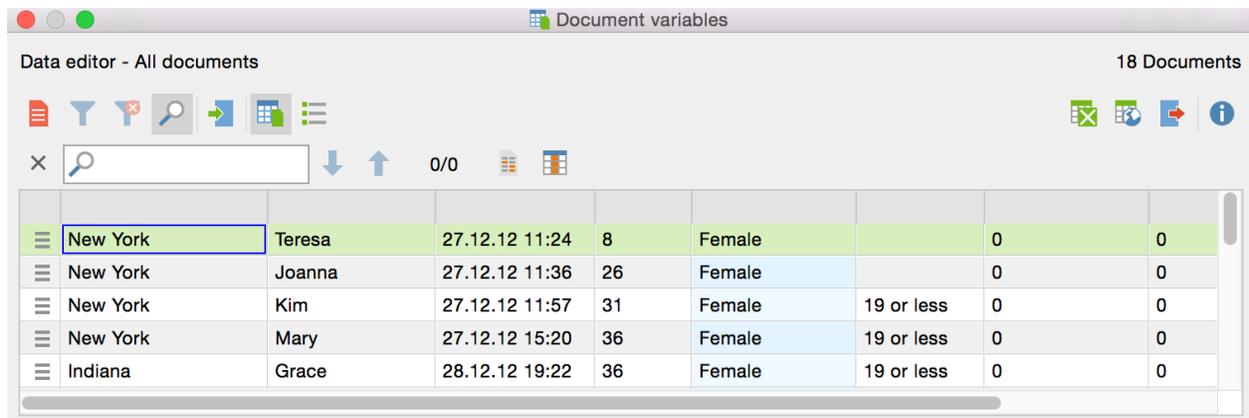
serves as a detailed view. Here, the coded segment, or text or image segment itself that is selected in the bottom section appears. The same applies to the “Overview of Memos”: Here the detailed view of the memo will appear.



Detailed view of the “Overview of Coded Segments”

3.3 Searching inside Table Overviews

To browse a table overview, click on the  symbol at the top of overview. Another toolbar will appear, in which you can enter the search term.

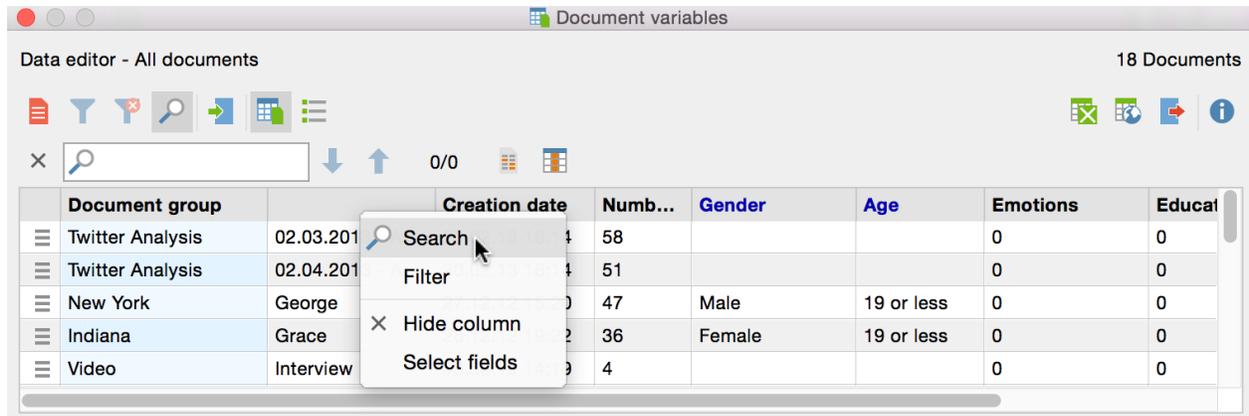


Browsing table overviews

 **Highlight all rows with hits** – Highlights all the lines in which the search term appears.

 **Choose search columns** – Allows you to select which columns will be searched.

Tip: If you want to limit your search to a single column in the table, right-click on the column heading and select the **Search** option. MAXQDA automatically selects only the indicated column for the search.



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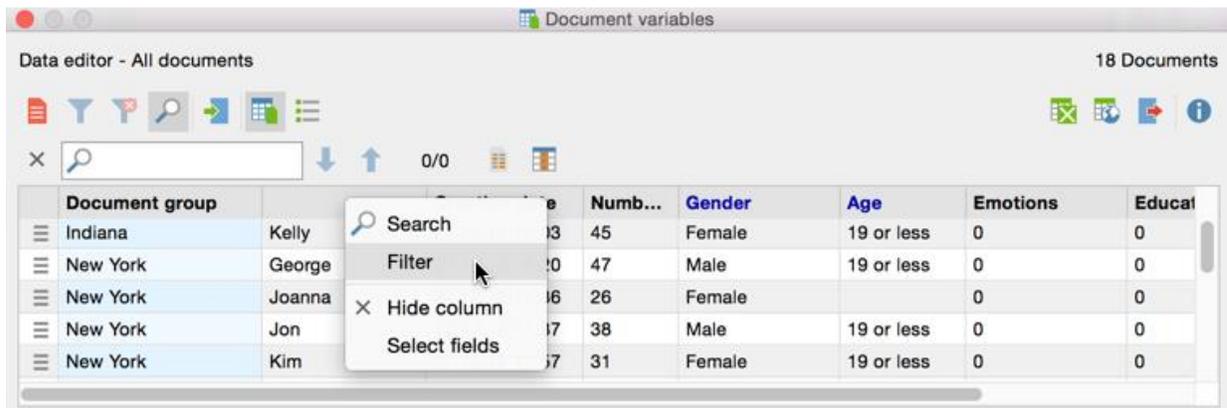
Document group	Creation date	Numb...	Gender	Age	Emotions	Educal
Twitter Analysis	02.03.201	58			0	0
Twitter Analysis	02.04.201	51			0	0
New York	George	47	Male	19 or less	0	0
Indiana	Grace	36	Female	19 or less	0	0
Video	Interview	4			0	0

Limit search to one column

3.4 Filtering Table Overviews

Table overviews can easily be filtered. For example, in the Data Editor you can display only the rows with documents containing more than 20 codes or whose names begin with "B":

1. Right-click on the heading of the column you wish to filter, and select the Filter option.

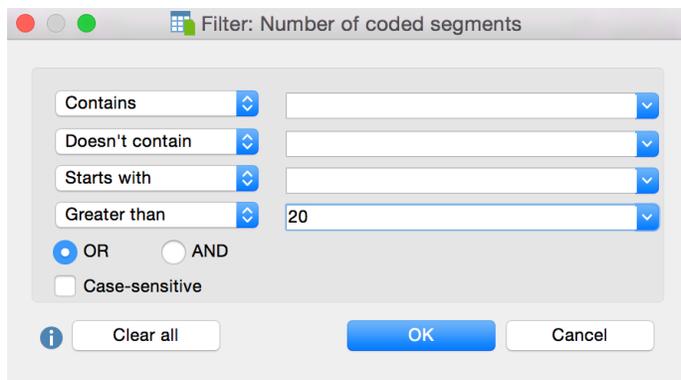


Data editor - All documents 18 Documents

Document group	Name	Numb...	Gender	Age	Emotions	Educal
Indiana	Kelly	45	Female	19 or less	0	0
New York	George	47	Male	19 or less	0	0
New York	Joanna	26	Female		0	0
New York	Jon	38	Male	19 or less	0	0
New York	Kim	31	Female	19 or less	0	0

Set filter by column

2. Set the desired filter options in the window that appears.



Filter window

In all four input fields, you can define criteria to filter. The following criteria are available:

- Contains
- Doesn't contain
- Starts with
- Greater than or Lesser than (applies to both numbers and the alphabet)
- Earlier than and Later than (available only in columns containing a date)

OR/AND: Here you can select the manner in which the four input fields are combined. With **OR**, the rows in which at least one of the criteria applies are listed. With **AND**, the rows in which all of the criteria apply are listed.

Case sensitive – When this option is selected, you can differentiate based on whether the text in the text column appears in upper or lowercase. In this case, if “interview” in lowercase appears in the filtered column, “Interview” beginning with an uppercase letter would not be taken into account.

After clicking **OK**, MAXQDA filters the table overview according to the defined criteria. At the top right MAXQDA indicates how many of the originally existing rows are currently displayed.

	Document group	Document name	Creation date		Number of me...	Author
☰	New York	Joanna	27.12.12 11:36	26	0	Angela
☰	Websites & Literature	OECD 2009	28.12.12 09:34	30	0	Angela
☰	New York	Kim	27.12.12 11:57	31	0	Angela
☰	New York	Mary	27.12.12 15:20	36	2	Angela
☰	Indiana	Grace	28.12.12 19:22	36	0	Angela
☰	New York	Vincent	27.12.12 15:20	37	3	Angela

Filtered table overview

If you set a filter for multiple columns, they are combined with the AND function.

You can switch a filter for a table overview on or off at any time using the **Filter**  symbol, to toggle the view between all rows and filtered rows.

If you wish to delete all defined filters in an overview, click on the **Reset all filters**  symbol.

Note: Each time an overview is reopened, filters in table overviews will automatically be set to “off”. The filter settings are saved individually for each overview in the project, so if you have defined a filter and reopen the project at a later time, you can turn on the filter by simply clicking the **Filter**  symbol.

4 Documents and the “Document System”

4.1 General Information about Importing 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,
- import web pages in HTML 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 creation of memos. 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.

4.2 General Information on the Preparation of Text Documents

If you want to import text documents into MAXQDA you should think of their preparation before importing them. 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.



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, line height) is also carried over.
- The text can contain tables, pictures, graphics, etc.
- If objects like graphics are imported or not can be selected in the global options menu (**Project > Preferences ...** for Windows and **MAXQDA12 > Preferences for Mac ...**).

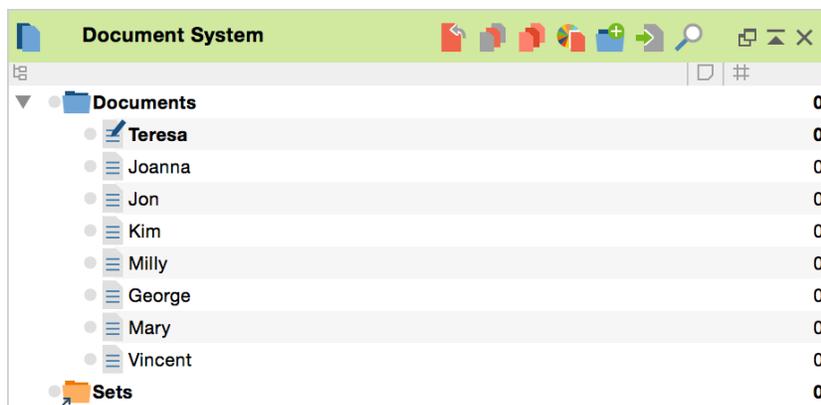
As listed, MAXQDA can handle tables in a text document, and you code parts or whole cells of these tables. The only limitation is that the size of the table can no longer be changed once it has been imported.

Note: Principally, it is recommended to use tables in text documents sparingly. This not only increases the options for analysis (e.g., automatic coding on a paragraph level), but also enhances the performance of display. In particular, it is advisable not to place interviews in a table structure in which each speech contribution forms a separate row.

4.3 Importing Documents into MAXQDA

Importing Documents with Drag-and-Drop

Importing files into MAXQDA is simple and intuitive: you can simply highlight the documents in Windows Explorer or Mac Finder 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, Kim, Milly, George, Mary, etc.) have been imported.

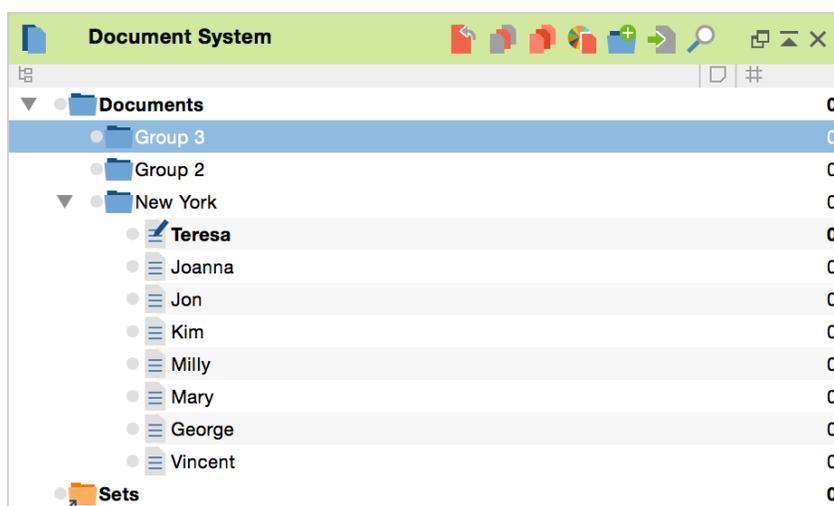


Visualization of eight imported documents in the “Document System”

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 (MAXQDA user logged in at the time of import), the date of import, and the number of coded segments and memos in the document.

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 or Mac Finder – 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 or Mac Finder 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.

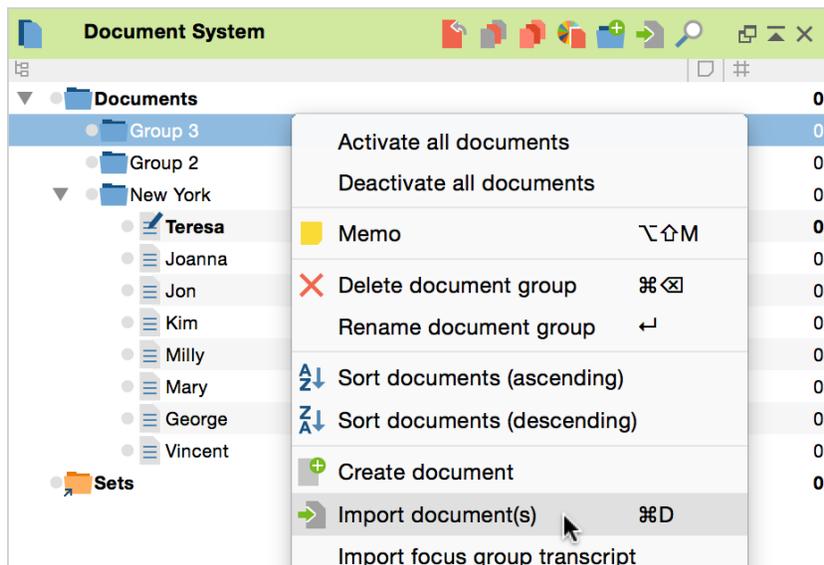
Tip: To import an entire document folder into MAXQDA, drag the folder from Windows Explorer or Mac Finder into the “Document System” window. MAXQDA will then create a new document group with the same name as the folder, into which it will import all MAXQDA importable documents.

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  in the “Document System” toolbar.
- 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 root in the “Document System” and select **Import document(s)**.



- 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 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 renaming 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 (Windows) or the cmd button (Mac) while clicking on the documents to import.

Note: The document group into which the document will be imported will be highlighted in blue. When no document group is indicated, MAXQDA will insert the newly imported document at the top of the document system.

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.

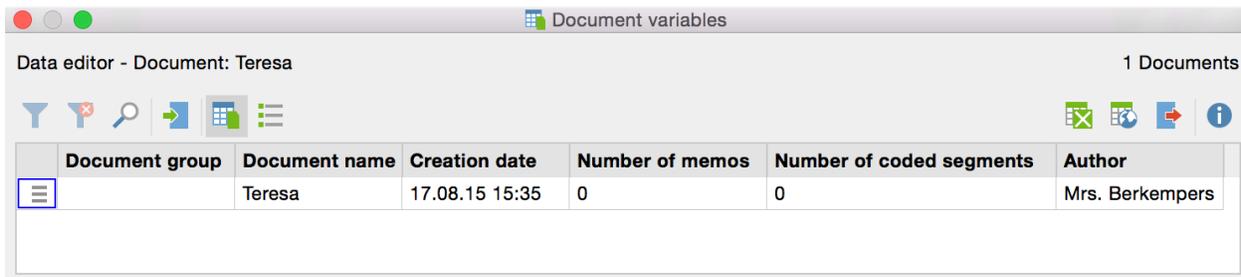
Note: In MAXQDA, it is not absolutely necessary that you create at least one document group. MAXQDA works with document groups similar to the way Windows Explorer or Mac Finder work with folders. You can create document groups/folders to better organize your documents, but each document doesn’t have 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.

Document variables generated automatically during import

Each document contains a data record of variables (“Document variables”). When you import a document, a record is simultaneously generated - much like during your first visit to a new doctor. If at

the time of import a data record containing variables is generated, firstly only certain internal MAXQDA variables will be saved.

To view these internal variables (“System Fields”), click **Overview of Variables** in the context menu of the document. Here, you can see the date, time, and user name (author), among other information. In the **Number of Coded Segments** and **Number of Memos** columns, MAXQDA will display the existing coded segments and memos for this document.



Document group	Document name	Creation date	Number of memos	Number of coded segments	Author
	Teresa	17.08.15 15:35	0	0	Mrs. Berkempers

“Overview of variables” for a newly imported document

This information will appear as a tooltip if you hover the mouse over a document name in the Document System and wait a moment.

4.4 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.”

Since MAXQDA 10, it has been 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, either online or on a DVD.

For this reason, versions from MAXQDA 10 onwards do not save imported PDF and image files that are larger than a certain size (default 5 MB) in the project file. Instead they are 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 Windows normal license installations: [My documents]\MAXQDA_Externals
- for Mac 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 **Preferences** ... 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 automatically when the linked document is deleted; this audio/video file could also be linked to other documents.

What happens to a document in the “Document 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?

To share the project with team members and colleagues, including the external files, follow these steps

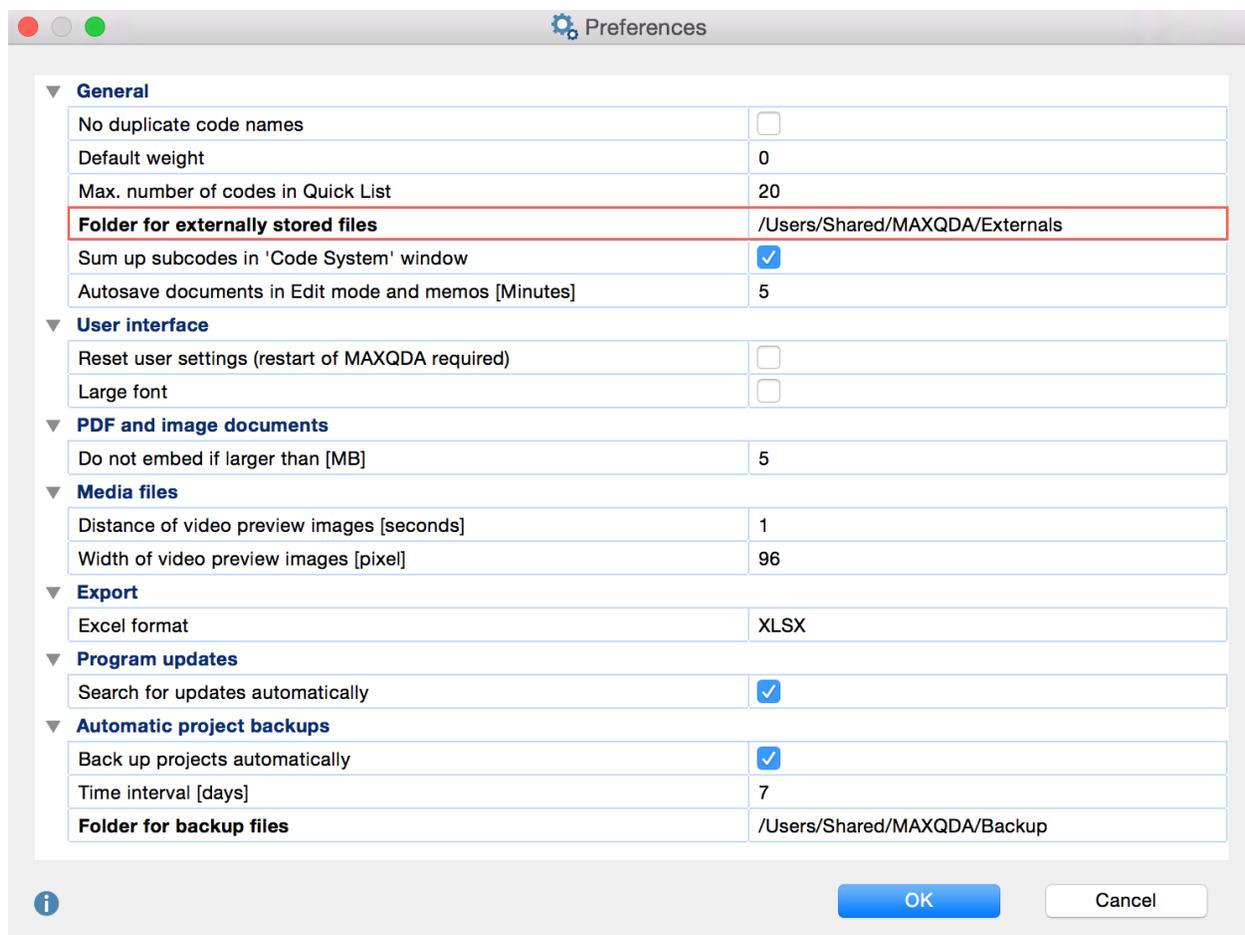
1. Send the MAXQDA (MX12) project file.
2. Bundle all external files with the appropriate function in the Project drop-down menu. MAXQDA then compresses all external files associated with the current project into a Zip archive, which is named after your project (e.g. “Projectname.mx12.zip”) and saved in the same place as your project file.
3. Send this newly created Zip file.

Procedure on receiving end:

1. Open the MX12 project file.
2. 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 location settings for your external files (**Windows: Project > Preferences ...; Mac: MAXQDA 12 > Preferences ...**) are global, meaning for all of your projects. You can also select project-specific locations, but this requires great discipline when working. In this case, select a specific external folder at the beginning, when you create the project. This location will consequently be used for all projects, meaning when you open other projects you must first re-select the applicable location.



Global options for MAXQDA

4.5 Objects Embedded in Text

MAXQDA for Windows 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

Note: When you enter an Internet address in a text in MAXQDA, it will automatically transform into a clickable hyperlink when you close Edit Mode.

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 coded and called up in the “Retrieved Segments” window, but they don’t affect the size of the project file. Since MAXQDA 10, it has been 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 Opening and Editing Documents

To view and edit a document, it must be open. MAXQDA will automatically open the most recently imported document. To open a specific document in MAXQDA, you can:

- **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.

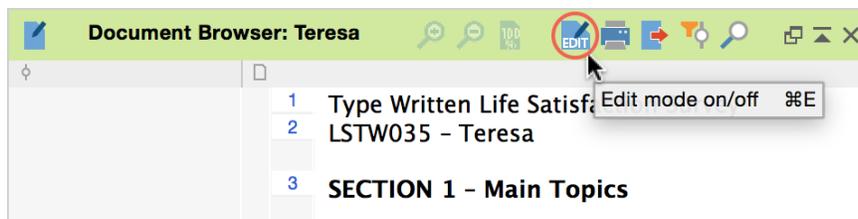


Symbol in the “Document System” for a document open in the “Document Browser”

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:

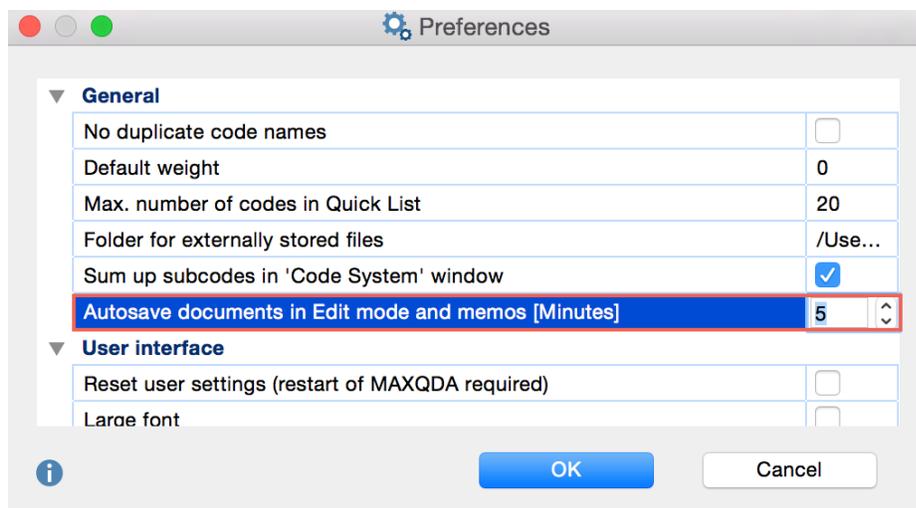
- “Code Mode” – allows you to code segments of texts or images, create internal or external links, and write memos.
- “Edit Mode” – allows you to edit text in documents imported from RTF or DOC/X format as well as table documents. You can type new content, fix typos, and delete text.

Code Mode is active by default when a document is opened in the “Document Browser.” Click the Edit Mode button in the Document Browser toolbar to switch to Edit Mode. In Edit mode, the usual formatting functions such as selection of font color and size are available.



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 > Preferences (Windows)** or **MAXQDA12 > Preferences (Mac)** (by default, the open document will be saved every 5 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 have the option to undo actions. The Undo function operates in the same manner as in Word. You can undo actions such as, for example, deleting a text passage or adding a new one. To undo an action, either right-click on the context menu in the “Document Browser” and select **Undo text changes** or click “Edit” in the MAXQDA main menu and select **Undo text changes**.

Alternatively – so long as you are working in Edit Mode – you can click the  symbol in the Edit Mode toolbar.

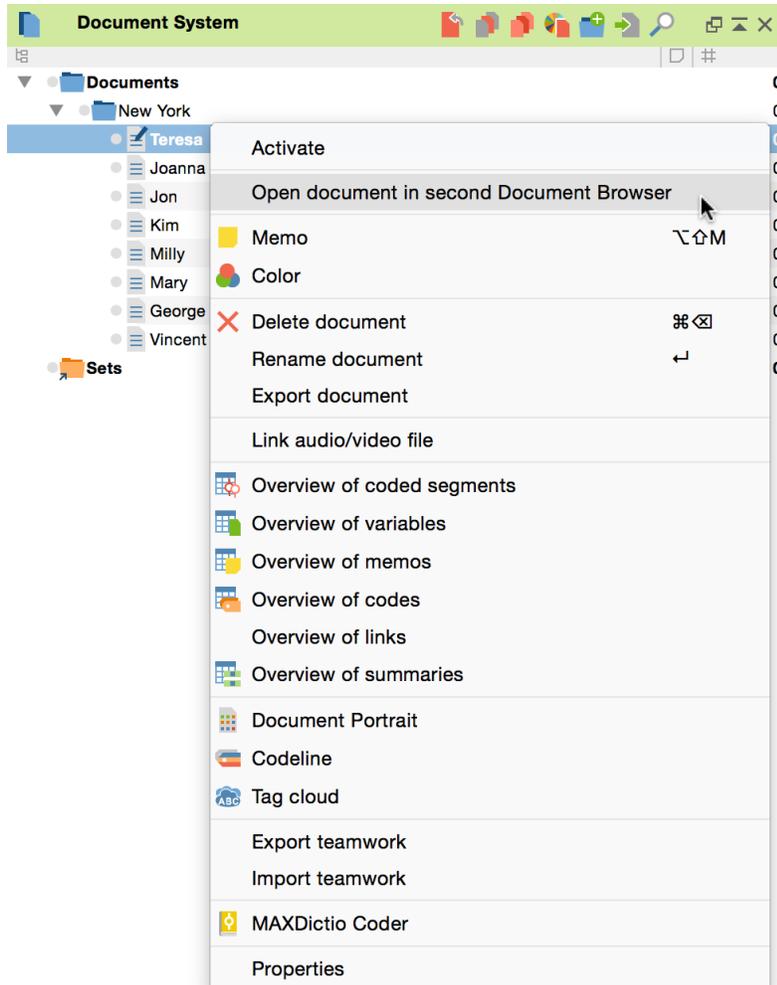
You can reverse your actions one by one using the Undo function. Alternatively, you can select the option **Undo all text changes** to reverse all changes since the last time Edit Mode was activated.

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. The deletion of a coding in Edit Mode cannot be reversed.

4.8 Opening two documents simultaneously

MAXQDA 12 offers the possibility of opening two documents simultaneously, each in its own separate document browser. This is helpful notably for conducting literature reviews: Open a publication as a PDF in one window and code thematically, directly from the document. You can simultaneously open and code a text document in which you have made your notes in the second window.

To open a document in its own document browser, right-click on the document in the “Document System” and select the option **Open document in second Document Browser**. The second document browser will open and display the selected document. The second document browser is particularly helpful if you work with a wide monitor or with two monitors.



Opening a document in the second Document Browser

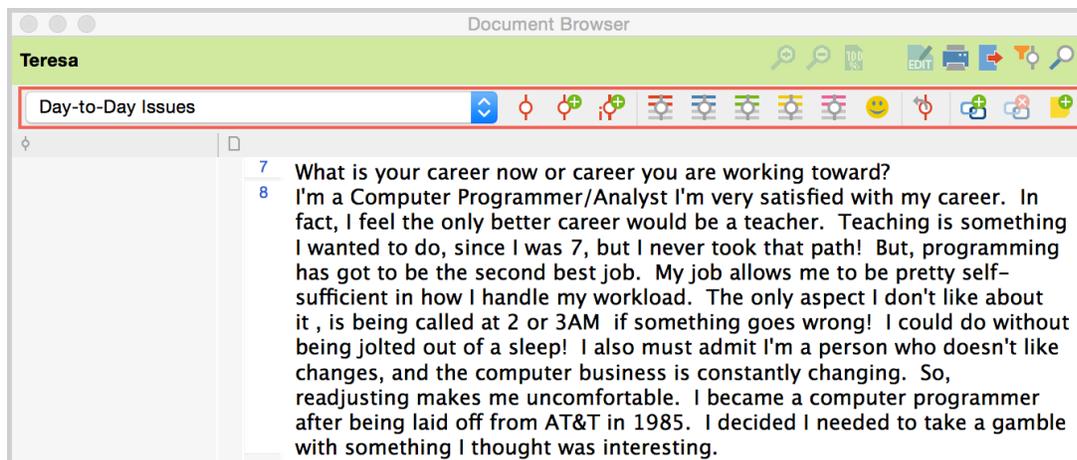
What are the rules for working with the second document browser? The following functionalities will make your work easier:

Document Links

- When you click on a document link within a document, it will open in a second document browser, while the original document or section remains displayed. This allows you to view both linked document sections at the same time.

Coding and Coding Stripes

- The drop-down “Code” toolbar is always displayed in the first document browser. The second document browser will display its own Code toolbar.



Code toolbar in the second document browser

- If the same document is displayed in both the document browsers, newly added codes are displayed immediately in both browsers after they are created; the display is thus synchronized.
- The filter settings for the displayed coding stripes are saved separately for each document browser. In this way, you can display, for example, only red coding stripes in one document browser, and only coding stripes by a specific author in the other document browser. Once you close the second document browser, the selection of the coding stripes is reset: that is, the next time you open the second document browser, all coding stripes will be turned on and visible (of course, only if they were created while coding the document.)

Jump from segments to the “Retrieved Segments” and “Overview of Coded Segments”

- Clicking on the source data in the "Retrieved segments" window always brings up the selected segment in the standard document browser, not in the new second document browser. The same is true for browsing the segments in the "Overview of Coded Segments".

Editing documents

- In the second document browser, you can switch to edit mode at any time by clicking the  button, to make changes to the document. Please note that only one of the two open documents can be in Edit mode at a time.

Note: If the same document is open in both MAXQDA document browsers, it is not possible to edit the document.

4.9 Opening Documents in 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.”

Tip: To open all documents in a document group in Tabs, drag the document group into the Document Browser with the left mouse button, then release.

4.10 Renaming and Deleting Documents

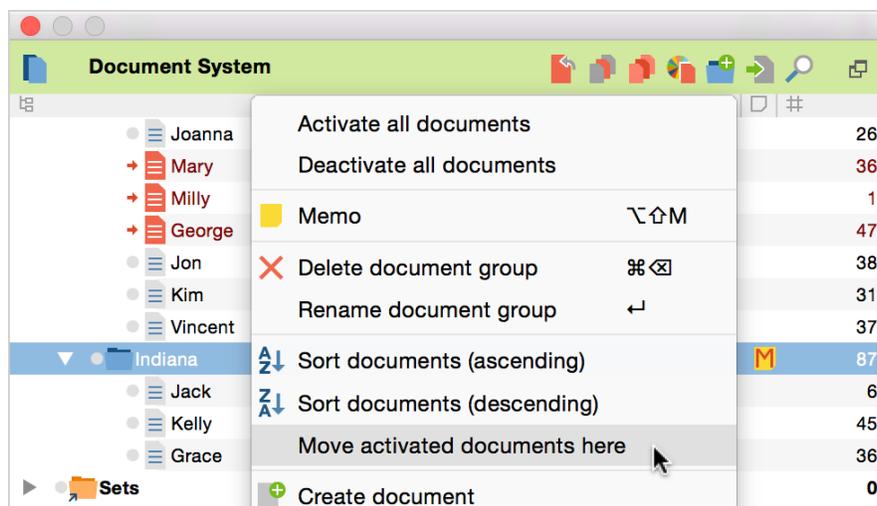
Document groups, document sets, and individual documents can be renamed at any point. Simply right-click on any of these objects and select the appropriate entry from the context menu. It is not recommended that you have more than one document with the same name. It is possible, but it can be very confusing.

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. In the context menu for a document group, you also have the **Delete document group** option, which deletes all the documents in a group in one single action.

Note: An unintentional deletion cannot be undone. For this reason, you should always back up your data on a regular basis.

4.11 Moving and Sorting 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

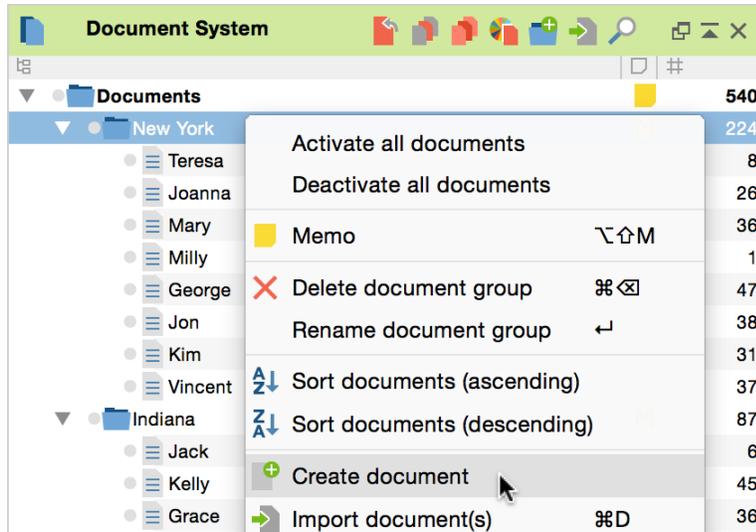
To sort documents in a document group, right-click on the document group and select **Sort documents**. There are two options with the same text, but the icons next to them are different. The first indicates that the sorting will be done alphabetically (A to Z), and the second indicates the sorting will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

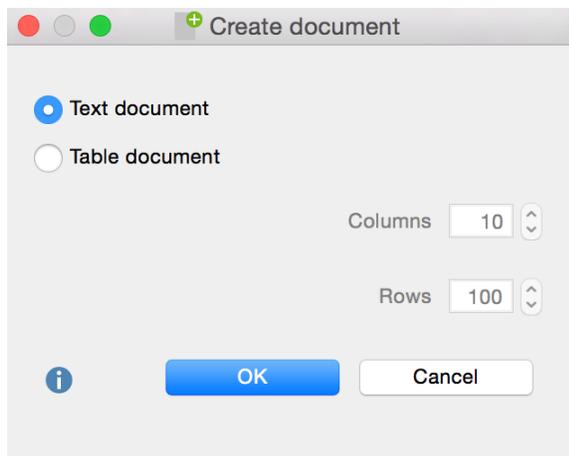
4.12 Creating a New Document in MAXQDA

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**.



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

MAXQDA will automatically assign the document a name in the form of "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.

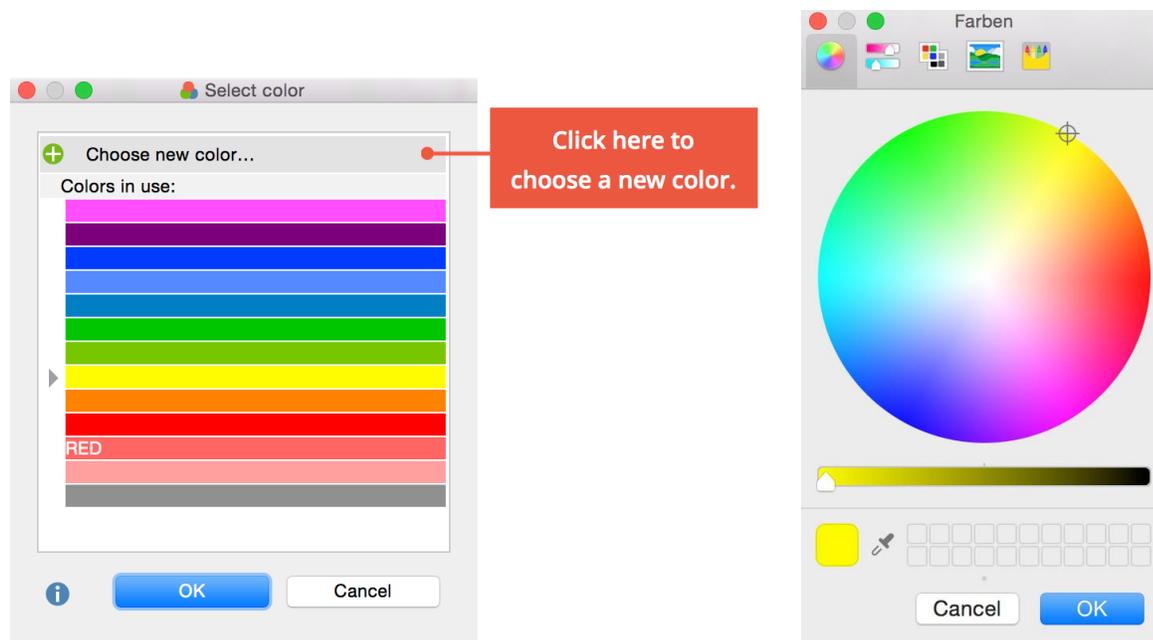
There is no need to save your new document. As is the case when editing an imported document, everything is saved in the new document once you leave Edit Mode, view a different document in the "Document Browser," or close MAXQDA.

Tip: Use the keyboard shortcut **Ctrl+T (Windows)** or **cmd+T (Mac)** to create a new text, which will be added to the currently selected level in the "Document System".

4.13 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 (here "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.

4.14 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 appears just to the left of the document icon.

Tip: For quick, easy activation, hold the down Ctrl key (Windows) or cmd key (Mac) 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, Links, etc.).

Modify Document Sets at a later time

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.

Tip: You can drag a document into a set at any time. Drop the document into the desired set and MAXQDA will insert it directly at the top of the set.

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 variable activation process.

4.15 Inserting Line Numbers in a Text Document

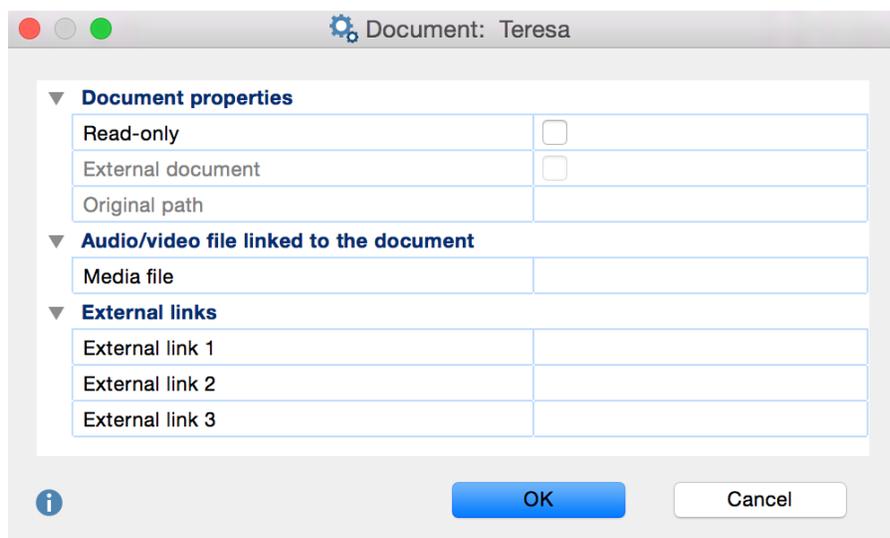
In some cases, you may wish to analyze documents based on line number rather than paragraphs. There is a MAXQDA function that allows you to set the number of characters that should make up each line, which will then be treated as a paragraph. To do so, open the document in the “Document Browser” and switch to Edit Mode. Then right-click in the document and select **Convert to line numbered text**. 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 and the insertion of a paragraph mark at the end of the 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.

4.16 The Document Properties Window

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 project file. Instead it has been copied into the folder for externally-linked files. In this case, the file name is also indicated under **Original Path**.

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. To do so, click on the line, then the button with the three dots at the end of the line...

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.

4.17 MAXQDA supports Unicode: Analyzing texts in different languages

The fact that MAXQDA supports Unicode makes it possible not only to import and analyze documents in any script, from Japanese to Cyrillic to Arabic), but also to create codes and variables in these languages. This Unicode functionality is available in every MAXQDA function

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.

4.18 Notes on PDF Documents

PDF documents, like normal text documents, can be imported into a MAXQDA project and coded. However, there are some special considerations when working with PDF documents, as the PDF format was not conceived for text editing but rather as a layout format for printing:

Saving PDF files outside the MAXQDA project file

By default, all PDF files smaller than 5 MB will be saved in the project file upon insertion. PDF files larger than 5 MB are not saved in the MAXQDA project itself, but rather in the folder for externally saved files, and generate only a reference to the the externally saved data. You can customize the maximum file size as well as the location for externally saved files under **Project > Preferences ... (Windows)** or **MAXQDA 12 > Preferences ... (Mac)**.

Tip: If you are working with many large PDF files (e.g. with a total size of more than 1 GB), it makes sense to store them externally so that the MAXQDA file remains small and can be easily secured. For optimal performance it is recommended that externally saved files be located on the local hard disk and if possible not on a network, although the acceleration of network speeds mean that this poses less and less of a problem.

Text and image segments in PDF documents can be coded with the mouse. Select and create a frame around the desired segments to subsequently code them. MAXQDA does not distinguish between text and image encodings in regards to code frequency; however in the Coding Query when searching for overlap, the query will search independently for overlap/intersection in text and image documents. Overlap between text segments and image segments will be ignored. The “Near” function for image segments always returns a result of 0, both in the Complex Coding Query and the Code Relations Browser.

If a text is in the format of a scanned PDF file, Optical Character Recognition or OCR, a text recognition process, must be carried out beforehand. This process makes it possible to mark and code the text, otherwise it would be possible only to mark images.

Multipage Coding

Beginning in MAXQDA 12, it is now possible to code text and image segments which fall over multiple pages, without dividing them. If the project is transferred to MAXQDA 11, the segments will once again be divided and the number of coded segments may increase.

Absence of paragraphs in PDF files

PDF documents, unlike text documents, have no paragraph structure per se. MAXQDA functions that rely on the paragraph structure can therefore not be used in PDF documents. These functions include,

among others, automatic coding with the parameters “Sentence” or “Paragraph”, as well as the “Near” function for segments in the Complex Coding Query and Code Matrix Browser.

Navigating the Document Browser

As soon as a PDF document is displayed in the Document Browser, several clickable icons will appear in the toolbar. You can flip forward and backward, adjust the zoom and use the bookmarks for navigation (many PDF files have several bookmarks, e.g. one per chapter).

Tip: If you want to display a PDF in MAXQDA that contains data in form fields, you should print your document into a new PDF before importing it. Otherwise it may happen, that the data inside the form fields is not displayed.

4.19 Notes on Image Documents

Image documents can be imported and coded in a MAXQDA project, as with normal text documents. There are, however, certain special considerations when working with images:

Saving Image Documents outside of the MAXQDA project

Normally all image documents of less than 5 MB are saved directly in the MAXQDA project. Image documents larger than 5 MB are not saved directly in the project, but rather in the folder for external files, and only a reference referring to the externally saved file is generated. You can customize the maximum file size as well as the location for externally saved files under **Project > Preferences ... (Windows)** or **MAXQDA 12 > Preferences ... (Mac)**.

Tip: If you are working with many large image files (e.g. with a total size of more than 1 GB), it makes sense to store them externally so that the MAXQDA file remains small and can be easily secured. For optimal performance it is recommended that externally saved files be located on the local hard disk and if possible not on a network, although the acceleration of network speeds mean that this poses less and less of a problem.

Coding Image Segments

In image documents, borders can be drawn around the selected area with the mouse which can be subsequently coded like text segments, meaning they can be dragged and dropped into a code. With the Complex Coding Query and Code Relations Browser, the “Near” function for image segments always returns a result of 0.

Rotating and Zooming Images

As soon as an image document is displayed in the „Document Browser“, several icons for viewing the image will appear in the toolbar. You can zoom in or out of the image as well as rotate it clockwise (images imported from digital cameras and mobile phones should, as a rule, rotate to the right, provided the correct information has been saved in the image.)

4.20 Notes on Table Documents

Importing Table Documents

MAXQDA makes it possible to insert and analyze files in XLS or XLSX format, 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 or Mac Finder 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 conformed.



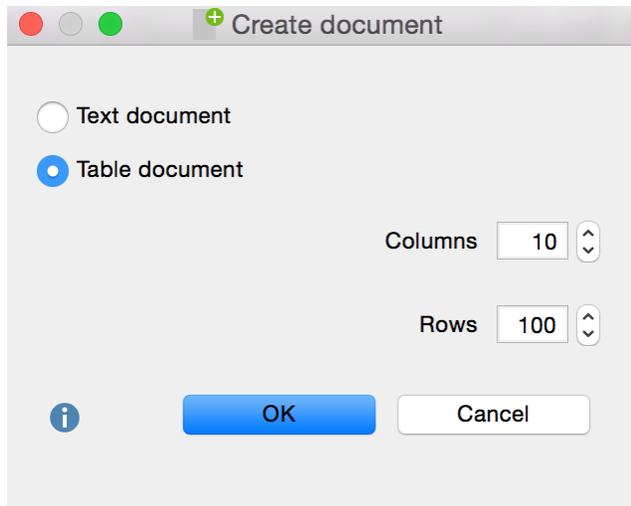
	1: username	2: date	3: time	4: status
1	UserZJS	02.03.2013	23:27:00	Smug satisfaction will lead to genuine disappointment. Pus be okay with just sliding by on everything.
2	UserAM	02.03.2013	23:21:00	How to Increase Your Happiness and Satisfaction in Life htt #satisfaction #life #hubpages
3	UserGWE	02.03.2013	23:07:00	That feeling of satisfaction when you finish a Netflix series for the past month
4	UserHOL	02.03.2013	22:50:00	The greatest satisfaction in life is doing what others said yo
5	UserTHI	02.03.2013	22:49:00	Never let a low life bring you down! That's what makes the them that satisfaction!
6	UserPRI	02.03.2013	22:46:00	@UserCS Look to Jesus. He is the only One that can give us circumstances and give us satisfaction in life :)
7	UserBLK	02.03.2013	22:43:00	Don't live life for everyone's opinion's or satisfaction, but i negative about you when speaking the truth

Imported table document in the “Document Browser”

Table documents are indicated in the “Document System” with a  symbol.

Creating Table Documents

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 or deleted at a later time.

The Table View in the “Document Browser”

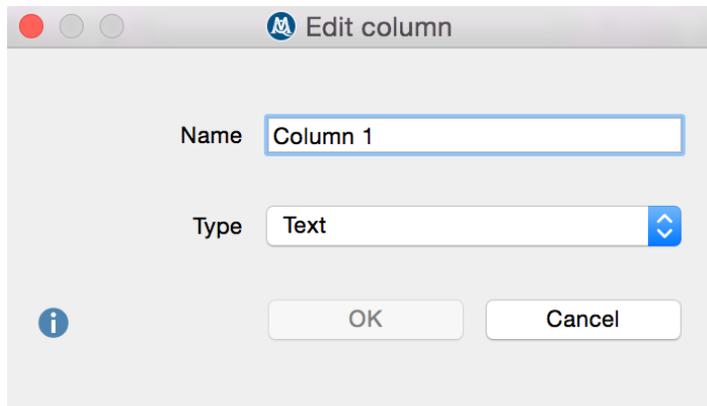
Table documents in MAXQDA will be automatically formatted. It is not possible to modify the text format.

You can zoom in to the table using the zoom icon in the “Document Browser” 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

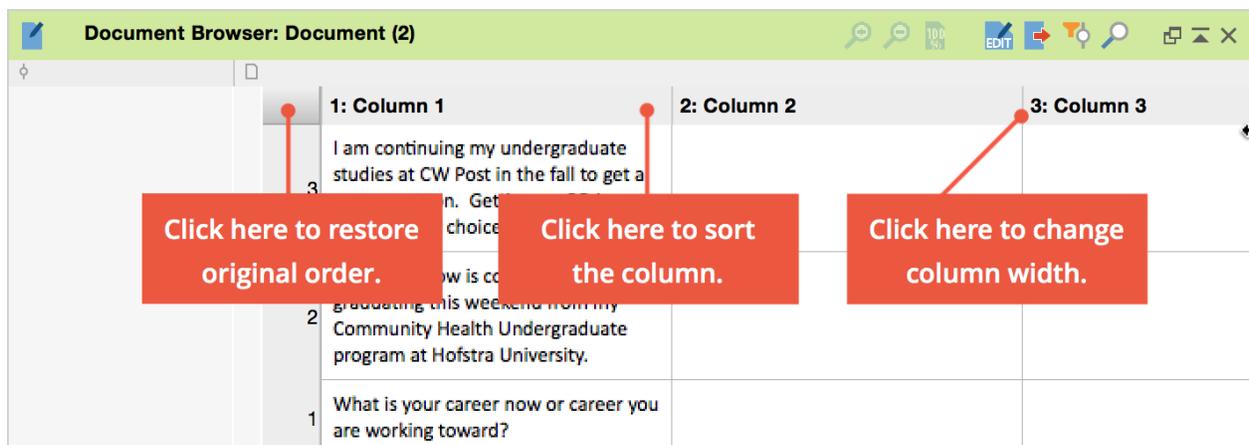
When you import a table each column will be assigned a type automatically:

- Text
- Numeric
- Date/Time

To change a column type, open the drop-down menu "Type."

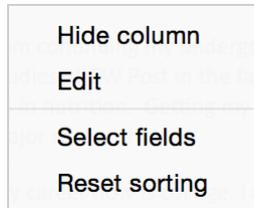
Note: It is not possible to modify the column type if the column contains coded segments.

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.

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 toolbar of the “Document Browser”.

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**.

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.



02.04.2013 - Analysis "life satisfaction"

	4: status	5: hashtags
Autocode: satisfaction	7 Sometimes I find great satisfaction in making certain individuals life a living hell... :)	
Autocode: satisfaction	8 That the self-satisfaction bar is set that low is maybe sharing more about where I'm at in my life than I would like	
Autocode: satisfaction	@UserBEB -He grins, satisfaction evident on his face.- ellent. I'll show you the good life, mark my words.	
Autocode: satisfaction	in it because I care the satisfaction of making a erence in someone's life makes me more motivated ????	

Yellow border:
Cell can be edited.

Coded text in a cell

Note: When you hide a column, the corresponding coding stripe in the "Document Browser" will also be hidden.

Notes on Retrieval Functions in Table Documents

The retrieval options for coded segments in table documents 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.

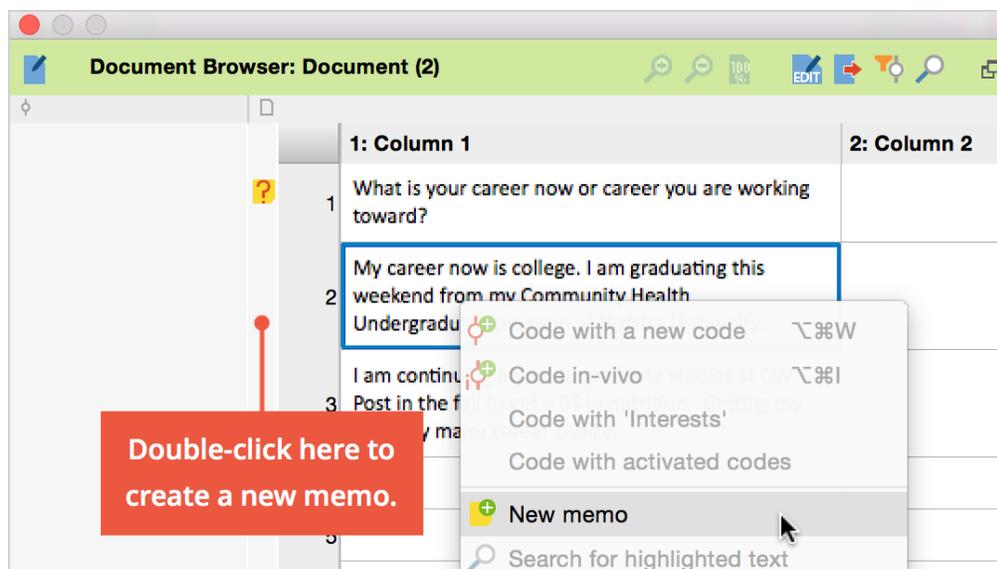
The Near function in the Code Relations Browser and Complex Coding Query applies to columns in table documents. This means that only the vertical proximity of two codes, and not the horizontal or diagonal proximity, will be taken into account, and that coded segments in different columns will never be found, when using the Near function.

Click on the source data in the "Retrieved Segments" to indicate the coded text in the "Document Browser" and display the corresponding column.

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.

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 in normal text. Overlap can only occur within a particular cell. The “Near” function will search only for coded segments in the same column.

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.

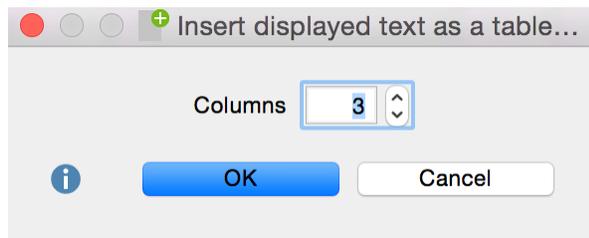
Exporting Table Documents

Table documents cannot be printed directly from MAXQDA; they can however be exported in Excel format. Click the **Export Displayed Document** button  in the Document Browser or select **Project > Print > Displayed Document** from the main menu. Alternatively, you can right-click on the document in the “Document System” and select **Export**.



4.21 Converting a Text Document into a Table Document

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 > Insert displayed text as a table document** 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
5	On a scale of 1-10, how satisfied are you with your career path?	
6	Answer: _9_	
7	What is your career now or career you are working toward?	
8	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 how I handle my workload. The only aspect I don't like about it, is being called at 2 or 3AM if something goes wrong! I could do without being jolted out of a sleep! I also must admit I'm a person who doesn't like changes, and the computer business is constantly	

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.

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.
- 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.
- Results from database retrievals, such as a list of references, should be pre-coded with author, title, abstract, etc.

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 nn," and the following documents will be named in sequential order 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 63 characters) as a document name – spaces are also allowed. If you enter a document name with more than 63 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.

An Example

In the example project, various interviewees were asked about their level of satisfaction with various aspects of their life. Their answers were transcribed and imported as Word documents.

The resulting Word file appears as follows:

```
#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.

...
```

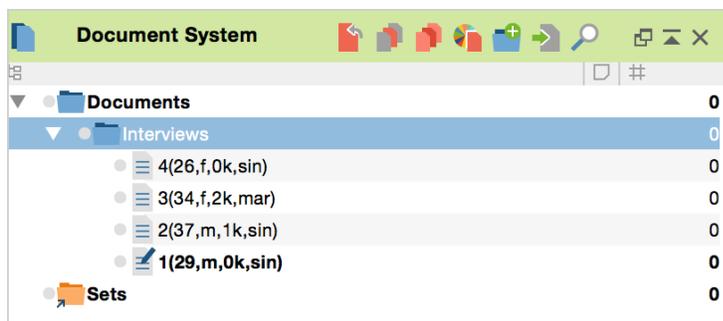
Excerpt of the Word file

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 with the name “HealthSatisfaction” in RTF or DOC/X format. It could then be imported by using the menu option **Documents > Import structured document (Preprocessor)**. This option can also be accessed from the top level of the “Document System” window.

Tip: MAXQDA automatically creates a new document group in the „Document System“ during import and inserts all texts into this document group.

All texts will appear in the “Document System” after being successfully imported. The documents are named as previously specified followed by #TEXT as an identifying agent. In the above example, the document name consists only of a text number and the personal data indicated in parentheses.



Documents after being imported with the Preprocessor

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.

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 automatic 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: As soon as “#CODE” appears in the text, 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.

Tip: To assign several codes to a text part you can combine the codes with two “&&” characters, e.g. #CODEFirst code && Second code && Third code

Mark participants of a focus group

If you use the tag #SPEAKER inside a text section, MAXQDA will import the text as a focus group transcript and will code the text after the tag with a speaker code. The tag #ENDSPEAKER closes the speaker coding. The tag may be inserted within a sentence, but then a # has to be added after the name of the speaker.

```
#TEXTFocus group 1

#SPEAKERModerator
A warmly welcome to our session ...
#ENDSPEAKER

#SPEAKERParticipant 1
#CODETheme 1
I have the following opinion
#ENDCODE
#ENDSPEAKER
```

Use of tags for pre coding speaker in focus group documents

This function is very interesting for exporting data that have been collected online with the tool <http://www.kernwert.com>.



5.3 Importing Text from a Table/Spreadsheet (e.g. Answers to Open Questions)

With MAXQDA you can import structured documents from an Excel spreadsheet in XLS/S format, during which individual table cells will be automatically coded. In addition, variable values can be assigned to the individual texts. This is particularly useful when importing (online) surveys with standardized and open answers.

How must the Excel table be structured?

When imported into MAXQDA, each row of the table becomes a new document, wherein the contents of the cells form the document content and are coded with the respective column header. The structure of the Excel table corresponds to the principle of a data matrix of a standardized survey. This logic is illustrated in the table below:

Document Group	Document Name	Question 1	Question 2	\$Variable
Document Group A	Person 1	Answer to question 1	Answer to question 2	Variable value
Document Group A	Person 2	Answer to question 1	Answer to question 2	Variable value
Document Group B	Person 3	Answer to question 1	Answer to question 2	Variable value
Document Group B	Person 4	Answer to question 1	Answer to question 2	Variable value

Each row of the table contains a case, and the columns "Question 1" and "Question 2" contain the respondent's responses to the respective questions. The column "\$Variable" contains additional variable values for each case. Of particular importance are the first two columns "Document group" and "Document Name", which assign the individual rows of the table to documents in MAXQDA's "Document System".

Note: It is not absolutely necessary to have a column for the "Document Group" as MAXQDA can also create a new document group, into which all documents are imported, during the import process. However, at least one column is required, which contains the document name.

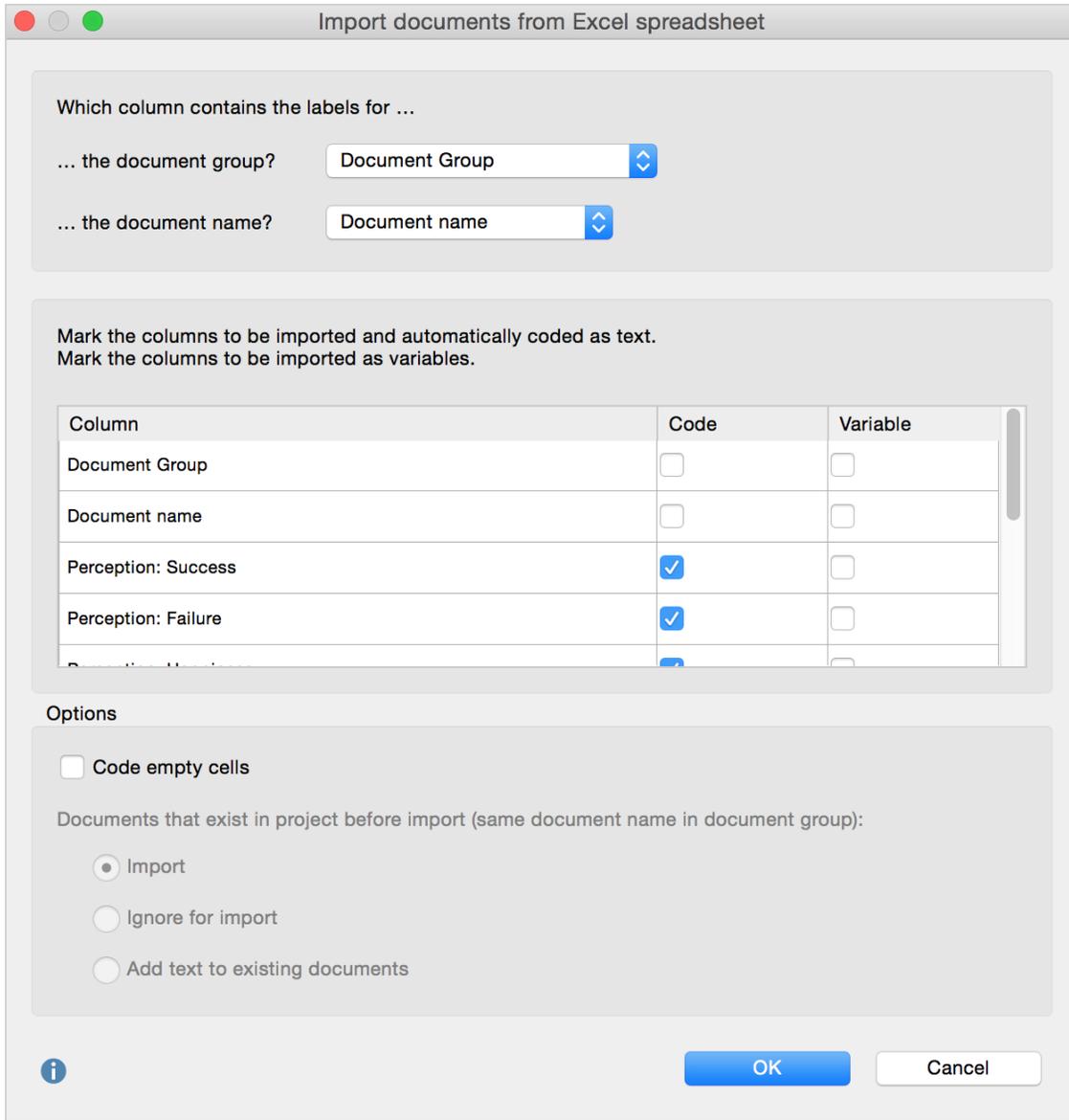
Starting the Import

To import the Excel file, proceed as follows:

- Select the menu function **Documents > Import documents from Excel spreadsheet**
or
- select the same option from the context menu of the "Document System".

Setting Import Options

After calling up the function, the desired Excel file must be selected from the file dialog box. This opens a window where you can enter the settings for the import.



Which column contains the labels for ...

... the document group?

... the document name?

Mark the columns to be imported and automatically coded as text.
Mark the columns to be imported as variables.

Column	Code	Variable
Document Group	<input type="checkbox"/>	<input type="checkbox"/>
Document name	<input type="checkbox"/>	<input type="checkbox"/>
Perception: Success	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perception: Failure	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Perception: Failure	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Options

Code empty cells

Documents that exist in project before import (same document name in document group):

Import

Ignore for import

Add text to existing documents

Settings for importing documents from an Excel spreadsheet

The two top settings determine which columns contain the Document Group and the Document Name. If the names "Document group" and "Document Name" are used in your table as column headings, MAXQDA will automatically select them, but this choice can be changed at any time.

If you select [Create new document group] for the entry "Document group", MAXQDA will automatically import all documents into a new document group. MAXQDA automatically selects this option, if your table doesn't contain a column with the heading "Document Group".

Tip: When importing answers to open questions, it is recommended that you select the ID's of the respondents as a column for the document names. In this way, you can avoid any ambiguity in the association of responses to cases, even during the subsequent export of data into statistical software.

In the middle section you can select the columns to be imported as coded text or as variables.



Tip: By default, columns whose heading begins with a "\$" will be imported as variables and all other columns except the Document Group and Document Name will be imported as coded text.

If both "Code" and "Variable" are selected, MAXQDA will import the contents of this column as both as coded text and as a variable. This may be useful, for example, you do not wish to view the variable information of a document each time as a tooltip over a document name or in the Data Editor for document variables, but rather view, for example, how old a respondent is and whether he has children, directly in the text.

If neither "Code" nor "Variable" are selected, MAXQDA will ignore the column during the import process.

In the lower section, further options are available:

Code empty cells: When this option is selected, MAXQDA will import and code cells without content as empty paragraphs; these cells would otherwise not be coded.

You can also decide how MAXQDA should handle documents that were already included in the project before the import. MAXQDA considers that a document already exists in the project if the document name and document group are identical.

Import: When this option is selected, existing documents will be included in the import, and therefore may appear twice in the respective document group.

Ignore for import: Select this option if documents that already exist in the project should not be taken into account during the import.

Add text to existing documents: It is also possible to add text to existing documents. For example, data from different points in time in a longitudinal study can be added to the original document. Existing variable entries in existing documents will be updated. Empty variable values in the Excel table are ignored when importing.

Note: For documents whose name appears repeatedly in a document group, the text will be added to the first document of the same name.

Setting other options for the import of variables

If you choose to import variables, a second window will open after you click **OK**.

Source: By selecting this option, you can again decide which variables will be imported.

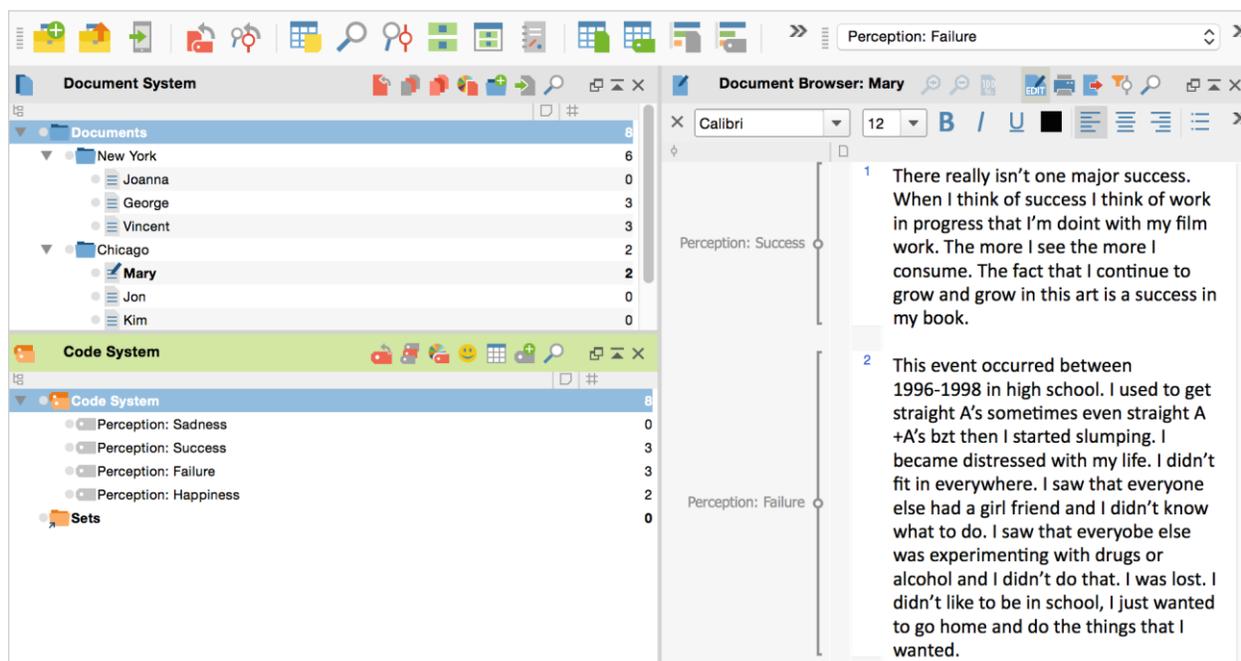
Target: If there is already a document variable with the same name in the project, MAXQDA assigns the variable to it automatically and no other choice is available. If there is no variable with the same name in the project, you can specify the type of variable. Options include: Boolean (true/false), date/time, floating-point number, integer, and text.

Preview data type: This column displays a preview of how an entry will appear in the appropriate column in the data editor.

A final report window confirms the import of documents from the table and lists how many texts, codes, and variables were imported, as well as how many documents may have been ignored during the import.

Imported Text in MAXQDA

After importing the table from the example into an empty MAXQDA project, it will appear as follows:



Imported texts in MAXQDA

When importing, MAXQDA proceeds as follows:

- Document groups that do not yet exist will be created.
- The headings of the code columns will run from left to right and will be inserted from top to bottom in the code system as new code names, as long as they do not yet exist. All text segments from the code columns will be coded with the respective column headings.
- If a variable does not yet exist, it will be created. Each document will be assigned the variable value from the variable column.

5.4 Importing Bibliographical Data from Endnote, etc.

MAXQDA 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 simple text 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 -
```

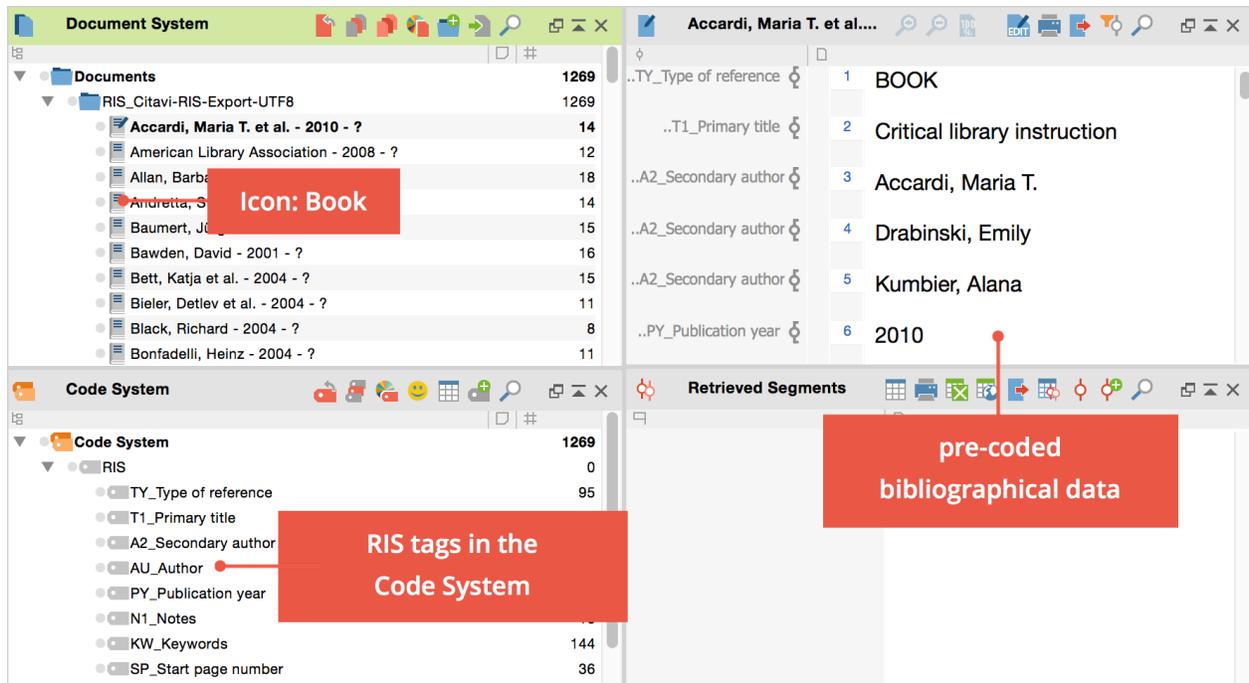
Calling up the Function

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 may be marked with a "?" If there are several authors, only the last and first name of the primary author will be included, followed by "et al."
- 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 all RIS tags that were used in the import as subcodes (e.g. "TY - Type of Reference").
- When imported, all documents will be automatically pre-coded, during which each text segment 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:

- RIS_Type (Type of reference) – String
- RIS_Author (First author) – String
- RIS_Title (Title) – String
- RIS_Reference-ID (Identification number) – Integer
- RIS_Year (Year of publication) – Integer

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



Document variables

Data editor - All documents 95 Documents

	Document name	TY_Type of reference	AU_Author	TI_Book title
☰	Accardi, Maria T. et a...	BOOK	Accardi, Maria T. et al.	Critical library instruction
☰	Allan, Barbara - 2002...	BOOK	Allan, Barbara	E-learning and teaching in library a...
☰	American Library Ass...	ICOMM	American Library Association	Information Literacy Competency ...
☰	Andretta, Susie - 200...	BOOK	Andretta, Susie	Information literacy
☰	Baumert, Jürgen et al...	BOOK	Baumert, Jürgen et al.	PISA 2000
☰	Bawden, David - 200...	JOUR	Bawden, David	Information and digital literacies
☰	Bett, Katja et al. - 20...	BOOK	Bett, Katja et al.	Medienkompetenz für die Hochsch...
☰	Bieler, Detlev et al. - ...	ICOMM	Bieler, Detlev et al.	DISCUS - Developing Information ...
☰	Black, Richard - 200...	BOOK	Black, Richard	The Future of Published Science
☰	Bonfadelli, Heinz - 2...	BOOK	Bonfadelli, Heinz	Medienkompetenz und Medienleist...
☰	Breivik, Patricia et al....	BOOK	Breivik, Patricia et al.	Information Literacy

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 > Export > Bibliographical data as RIS file**.

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

6 Import Web Pages with MAXQDA Web Collector

6.1 Save Web Page with Web Collector

The MAXQDA Web Collector is an add-on for the Internet browser „Google Chrome“. It allows you to save entire websites and import the files as pdf, picture, or text documents into MAXQDA. Among other things, this tool is useful to compare websites from various organizations, or to collect and edit content from websites for analysis with MAXQDA.

Install the MAXQDA Web Collector

In order to work with the MAXQDA Web Collector the installation of the Internet browser “Google Chrome” is required. As soon as “Chrome” is installed on your computer you can start the installation of the “MAXQDA Web Collector”:

1. Open „Google Chrome“.
2. Navigate to the website <https://chrome.google.com/webstore/detail/web-collector-for-maxqda/jclikkcolnhlpnlceldfigfdeocdgpf>, or search the Chrome Web Store for „Web Collector for MAXQDA“.
3. In order to add the add-on to your browser click „+ Add“.
4. After a successful installation you can see a tiny MAXQDA icon top-right in your browser window:



MAXQDA icon to open the MAXQDA Web Collector in „Google Chrome“

If you want to open the Web Collector just click on the MAXQDA icon:



MAXQDA Web Collector



The Web Collector offers three modes:

- Entire web pages can be saved. The layout remains optimally maintained.
- Web pages can be saved in a simplified version. The website will be reduced to text and pivotal pictures.
- Selected segments can be saved in order to transfer only a chosen section of a website.

Save Entire Web Pages

If your research is based on the analysis of every visible item of the website it is recommended to save the entire website in order to import it to your MAXQDA project as true to the original as possible. For doing that proceed as described below:

1. Open the website you want to save in Google Chrome.
2. When the website is fully loaded open the Web Collector by clicking the tiny MAXQDA icon.
3. Make sure the tab „Web Page“ is open.

Note: In case the pictures are not displayed after you switched to the tab “Simplified Web Page” and back, please reload the website in the browser.

4. Assign a name to the document. This name will later be inherited into the MAXQDA project.
5. If required, you can fill in a text in the “Document Memo” box. This text will later be connected to the imported document as a document memo.
6. Click **Collect**.

The MAXQDA Web Collector informs you about the progress and saves the website in the selected download folder of your browser. By default, it is the download folder of the logged in user. The web page is saved in a format that was specially developed for a further processing in MAXQDA.

Note: Time for saving can vary depending on the scope and complexity of the website.

Websites that are saved this way can be imported into MAXQDA as a pdf or picture document.

Save Simplified Web Pages

In case the focus of your website analysis lies on text you can save it as “simplified” website. The website will be reduced to text and pivotal pictures which can be compared to the read mode of your smartphone. This is particularly useful for big newspapers and magazines. In order to import a “simplified” website proceed as described below:

1. Open the website you want to import in Google Chrome.
2. When the website is fully loaded open the Web Collector by clicking the tiny MAXQDA icon.

Note: Some websites cannot be simplified due to technical reasons. You will be informed if this is the case via a message in the Web Collector window.

3. If required adjust further options such as font type, font size, and margin. This is particularly important if you want to import the website as a pdf document later.



4. Assign a name to the document. This name will later be inherited in the MAXQDA project.
5. If required, you can fill in a text in the “Document Memo” box. This text will later be connected to the imported document as a document memo.
6. Click **Collect**.

The MAXQDA Web Collector informs you about the progress und saves the website in the selected download folder of your browser. By default, it is download folder of the logged in user. Websites that has been saved this way can be imported into MAXQDA as a pdf or text document.

Save Certain Segment of a Website

In case you are only interested in a certain segment of a website there is a possibility to save single units of a website.

1. Highlight the segment you are interested in with your mouse.
2. Right-click the highlighted segment and choose **Collect selection**.

The highlighted segment will be downloaded immediately. It will be saved in your selected download folder.

3. Segments that have been saved this way can be imported into MAXQDA as a pdf or text document.

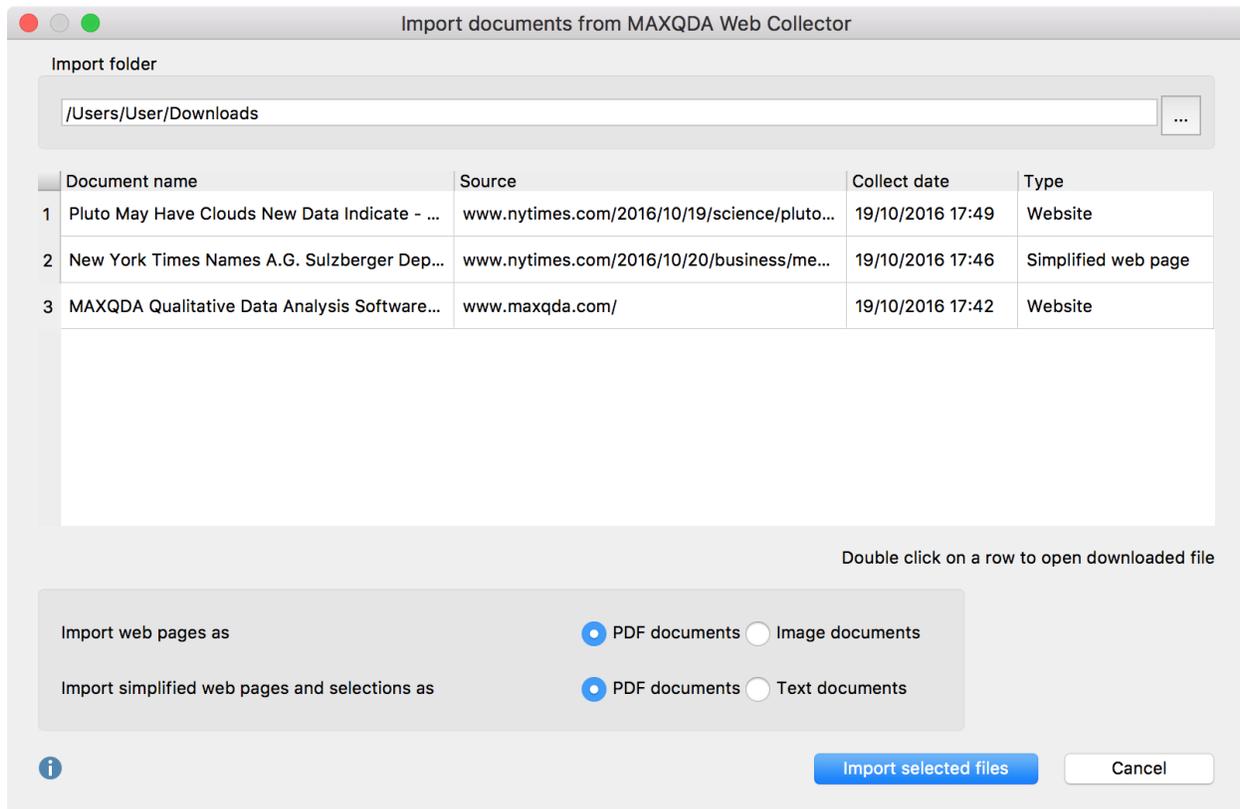
Copyright notice: the MAXQDA Web Collector uses “[Single File](#)”, a Chrome extension created by Gildas Lormeau.

6.2 Import Websites into MAXQDA

After saving the websites in the Web Collector (see [Save Web Page with Web Collector](#)) you can import them into your MAXQDA project:

1. Open the MAXQDA project you want to import the saved websites in.
2. Mark a document group in the “list of documents” in order to import the website in a selected document group.
3. Select **Documents > Import web pages from MAXQDA Web Collector** in the main menu.

The following dialog window appears:



Dialog window for the import of documents that have been saved with the Web Collector

- If you open the dialog for the first time the standard folder for downloads is selected and displayed in the top of the box. Every single website located in this folder will be listed in the center of the dialog. By clicking the three dots ... you can choose any other folder to import saved websites from the MAXQDA Web Collector.
- Select every website you want to import with the mouse. It will be highlighted green.

Tip: Double click a row to open the downloaded file in the Internet browser. This allows you to check single websites for their content.

- Two options are provided at the bottom of the dialog: first, you can select whether websites should be imported as pdf or picture documents. Second, you can select whether simplified websites or segments should be imported as pdf or text documents.

In order to start the import, click **Import selected files**. The time for import can vary depending on the scope and format of the selected document. A progress bar informs you about the import progress of each document.

In case you selected pdf or picture format and you want to import big files, MAXQDA asks you whether you want to import them as externally saved files or in the project (see [External Files](#)).

Note: The main layout will be adopted in the import process. Intentionally, the website's changed print layout won't be imported. Deviations from the website's original layout might occur especially as far as complex websites are concerned.

7 Import Online Surveys from SurveyMonkey

Which Possibilities does MAXQDA Offer for the Import of SurveyMonkey data?

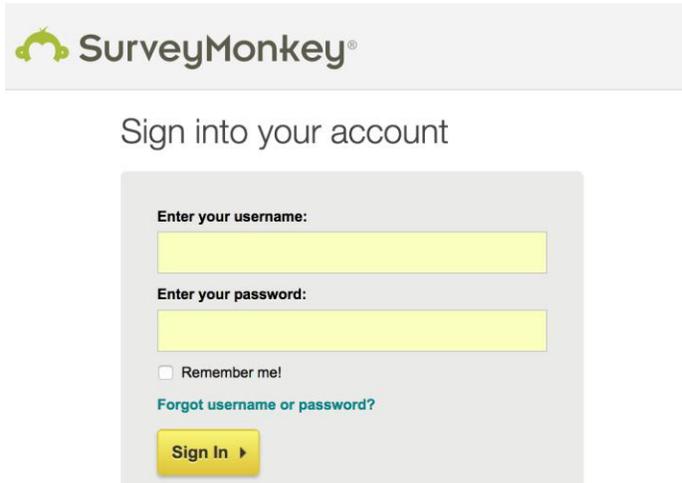
With MAXQDA you can import survey data directly from SurveyMonkey into an open MAXQDA project in order to analyze the data with all MAXQDA tools. The use of another software such as Excel for export and import is no longer required. While importing the data every case of the online survey becomes a MAXQDA document. You can code the answers of the open-ended questions automatically with the question text. Additionally, you can transform the standardized information into document variables.

Note: In order to use this MAXQDA tool access to your own SurveyMonkey account is required. Not all SurveyMonkey plans allow access to the data by third-party applications like MAXQDA. Please check the [website of SurveyMonkey](#), if your plan allows to export data (at present at least a GOLD plan is necessary).

Start the Data Import

To start the data import, proceed as described below:

1. Select **Documents > Import data from SurveyMonkey** in the main menu.
2. You will be redirected to the login page from SurveyMonkey in your Internet browser. Fill in your login data and click **Login**.



Login page for SurveyMonkey in the Internet browser

Note: If it is the first time you connect with SurveyMonkey a window might appear asking for free access through your firewall. Please confirm that MAXQDA is allowed to contact the Internet. Otherwise the import is not possible.

3. Another SurveyMonkey window opens and you are asked to authorize MAXQDA to get data from SurveyMonkey.



MAXQDA

This application **will be able to**:

- Access surveys and survey data in your account
- Access information on the respondents of your surveys
- Access collector data associated with your surveys
- Create surveys on your behalf

This application **will not be able to**:

- See your SurveyMonkey password

You are currently logged in as *PeterPan12abc*. [Use another account.](#)

Ich bin kein Roboter. 
reCAPTCHA
Datenschutzerklärung · Nutzungsbedingungen

By authorizing an application you continue to operate under [SurveyMonkey's Terms of Service](#). In particular, some usage information will be shared back with SurveyMonkey. For more, see our [Privacy Policy](#).

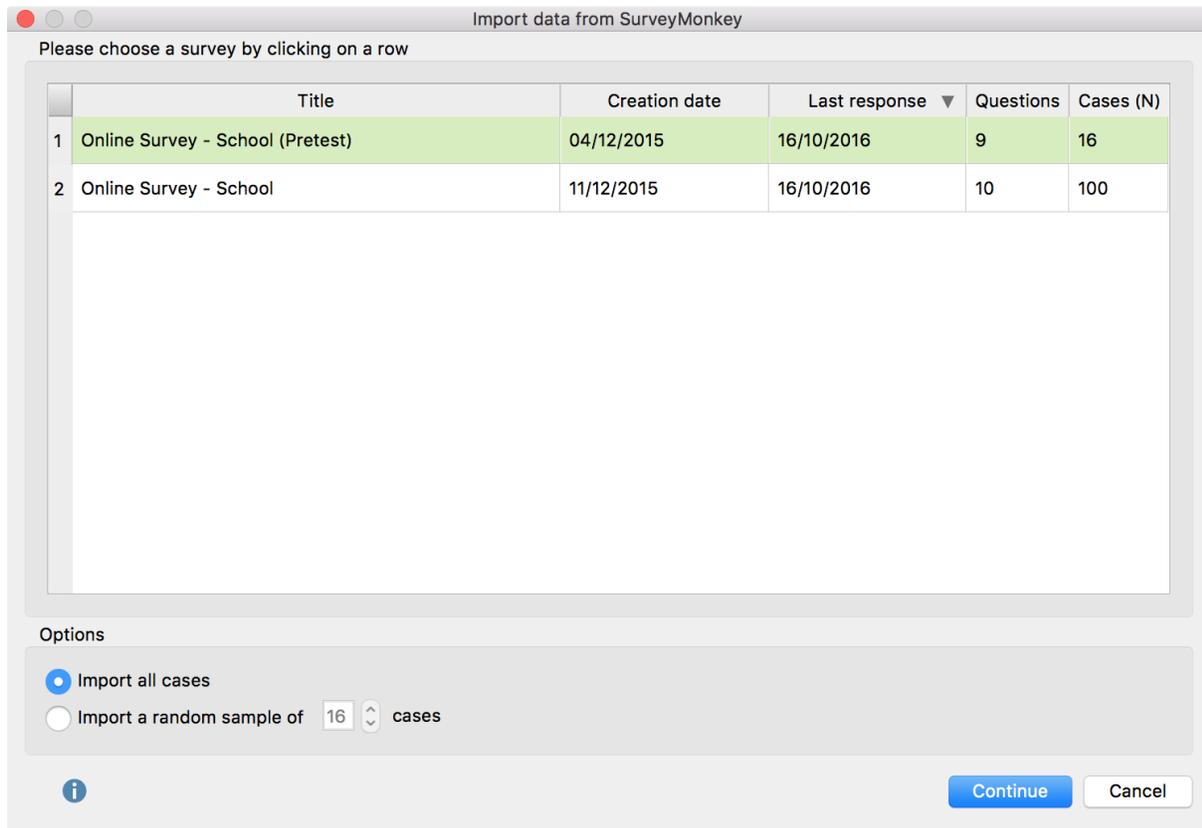
[Authorize](#) [No, Thanks.](#)

Authorization of SurveyMonkey in your browser window

Note: MAXQDA uses the connection to SurveyMonkey only for importing the survey data. When you close MAXQDA the authorization from SurveyMonkey for MAXQDA is cancelled meaning you must reauthorize the import of further data from SurveyMonkey each time you restart MAXQDA.

Import data

4. After a successful authorization of SurveyMonkey MAXQDA loads an overview of your surveys and displays the dialog below. In this window you can select the survey you want to import:



This dialog window allows you to select a survey you want to import

5. Via the selection at the bottom you can choose whether you want to import every case or a random sample of the cases. After doing that click **Continue**.
6. A new dialog window appears. Here you can choose on the top which question shall be applied as document name. In order to guarantee a unified definition of the documents the case-ID is selected by default. In general it is advised to keep this selection.

Import data from SurveyMonkey

Choose a SurveyMonkey question to be used as the document name

Case ID

Mark the questions to be imported and automatically pre-coded as text.
Mark the questions to be imported as document variables.

SurveyMonkey question	Code	Variable
Case ID	<input type="checkbox"/>	<input type="checkbox"/>
To what extent do you know how your child is doing socially at	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
To what extent do you think that your children enjoy going to t	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
In the past year, how often have you discussed your child's sch	<input type="checkbox"/>	<input checked="" type="checkbox"/>
In the past year, how often have you helped out at your child's	<input type="checkbox"/>	<input checked="" type="checkbox"/>
How regularly does your child read for fun?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
What is the highest level of school you have completed or the h	<input type="checkbox"/>	<input checked="" type="checkbox"/>
What suggestions do you have for improving this school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Please describe your relationship to your child.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Do you have any other comments, questions, or concerns?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
How many people currently live in your household?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Options

Code empty answers



Tweaking the settings for the import

In the center of the window you can choose the columns to import as coded text or as a variable. If you tick both marks MAXQDA imports the content of this column as both, a coded text and a variable. This can be useful if you want to read the information of the variable directly in the text (e.g. how old a person is or whether she has kids). By doing that you can avoid receiving this information only via the tooltip or the data editor of the document variables.

If you don't place a tick mark on a column MAXQDA ignores this column for the import.

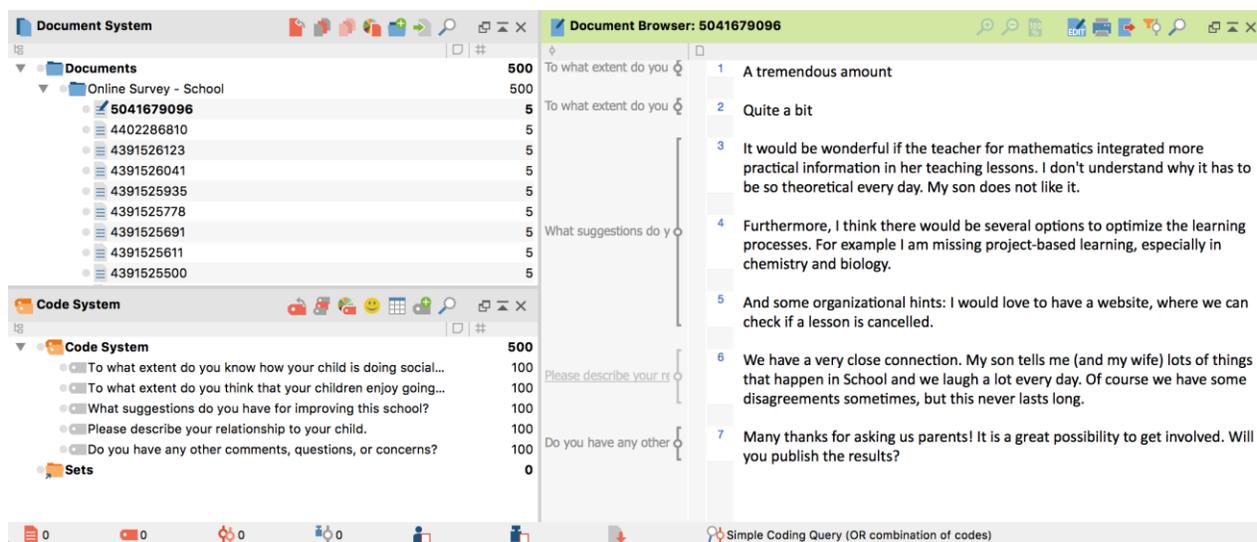
The selection at the bottom allows you to set the option **Code empty answers**. If you mark this option, MAXQDA imports and codes cells without content as empty paragraphs. Otherwise empty cells would not be coded.

After clicking **OK** the data will be imported:

- A new document group labelled with the name of the survey will be created.
- Every imported case in this document group will be imported into an own document.

- For each question that had been ticked in the column to import as a “code” a new code will be created in the “Code System” window
- The imported documents contain answers to those questions that are selected automatically in the column “Code”. The answers are coded automatically with the particular question code. This gives you the opportunity to get an overview of every answer of a question just by using the Coding Query functions in MAXQDA.

Note: In case you use a free SurveyMonkey account you can import not more than the first 100 cases.



The screenshot displays the MAXQDA interface with three main windows:

- Document System:** Shows a tree view of documents. Under 'Online Survey - School', there is a document '5041679096' with 500 cases. Below it are several individual cases with their respective counts (e.g., 4402286810 with 5 cases).
- Code System:** Shows a list of codes created from the survey questions. For example, 'To what extent do you know how your child is doing social...' has a count of 100. Other codes include 'To what extent do you think that your children enjoy going...', 'What suggestions do you have for improving this school?', 'Please describe your relationship to your child.', and 'Do you have any other comments, questions, or concerns?'. A 'Sets' category has a count of 0.
- Document Browser:** Shows the content of document '5041679096'. It lists seven numbered items:
 - A tremendous amount
 - Quite a bit
 - It would be wonderful if the teacher for mathematics integrated more practical information in her teaching lessons. I don't understand why it has to be so theoretical every day. My son does not like it.
 - Furthermore, I think there would be several options to optimize the learning processes. For example I am missing project-based learning, especially in chemistry and biology.
 - And some organizational hints: I would love to have a website, where we can check if a lesson is cancelled.
 - We have a very close connection. My son tells me (and my wife) lots of things that happen in School and we laugh a lot every day. Of course we have some disagreements sometimes, but this never lasts long.
 - Many thanks for asking us parents! It is a great possibility to get involved. Will you publish the results?

Data from SurveyMonkey after the MAXQDA import

Information About the Single Question Types

The question types from SurveyMonkey are imported into the MAXQDA project as described in the following table. You can determine whether an answer will be imported as an automatically coded answer to an open-ended question or/and as a document variable in the dialog that is shown before starting the import (see above).

Question type	Standard import in MAXQDA
Multiple Choice	1 variable 'Other' answer: automatically coded text
Dropdown	1 variable 'Other' answer: automatically coded text
Star Rating	1 variable
Matrix/ Rating Scale	1 variable per item 'Other' answer: automatically coded text
Matrix of Dropdown Menus	1 variable per answer cell 'Other' answer: automatically coded text
Ranking	1 variable per rank
Net Promoter® Score	1 variable



Slider	1 variable
Single Textbox	Automatically coded text
Multiple Textboxes	Automatically coded text per textbox
Comment Box	Automatically coded text
Contact information	1 variable per box
Date/time	1 variable

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

8.1 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."

8.2 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 Set link start/target in the coding toolbar, or choose the option **Insert Document link** from the context menu. You can also use the keyboard shortcut **Ctrl + L (Windows)** or **cmd + L (Mac)**. In text documents, the selected segment will appear underlined and in blue, or in PDF or image files, in a blue frame.



Toolbar button for creating a document link

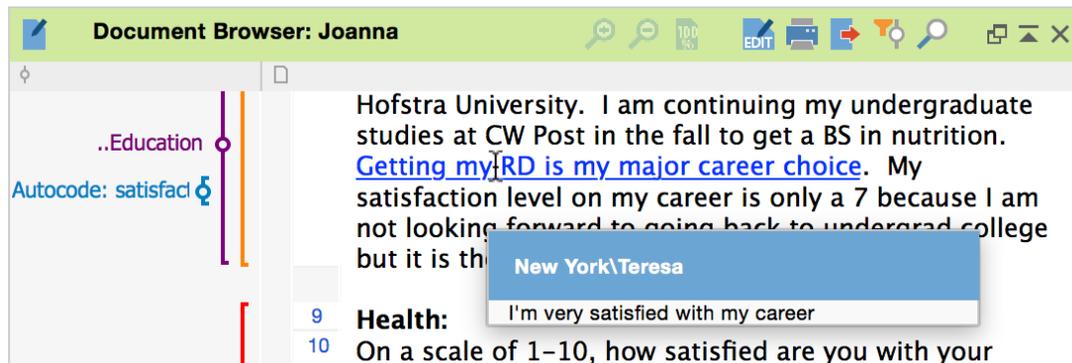
2. You can now choose the document or document segment that the anchor should be linked to. This second segment can be in the same document or in a different one. Simply go to the document or document segment and highlight a section of text.
3. To complete the link, simply click again on the Insert link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

Tip: If the second document browser is open (>> LINK), MAXQDA automatically jumps to a link in the other document browser window. In this way, you can view the two linked document sections at the same time.

8.3 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).

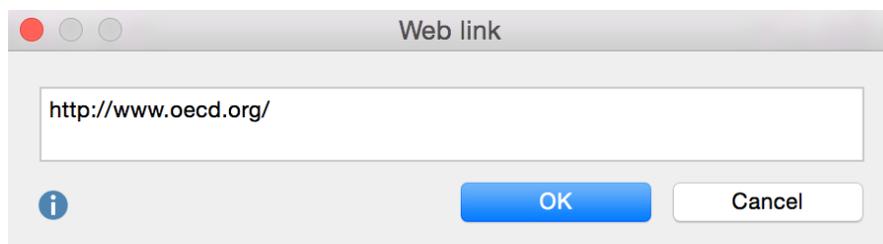
To insert an external link, simply highlight a section of text or image, right-click on it, and select **Insert external link**. A window will then appear where you can select the appropriate external document to be linked. This can be on your internal hard drive, an external medium like a flash drive,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

External links, for text documents, are blue and underlined like the document links, or in a blue frame for PDF and image documents. 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. For example, clicking on a link to an image file in JPG format will open the file in an image viewer program.

8.4 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**.
3. 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.

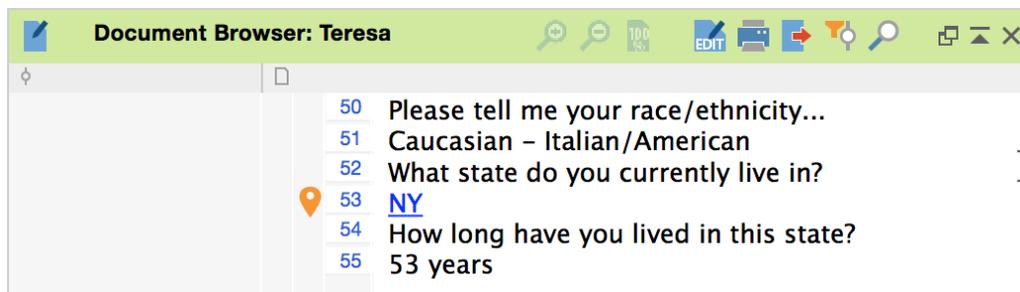
As is the case with the external links, you can hover over the web link and see the linked website in the tooltip. Double-clicking on the link brings up the website in your standard Internet browser.

8.5 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. 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.
3. 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 Maps will open in your Internet browser and the location will be marked with a red dot.
4. 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.
5. 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.



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

Note: When you add a geolink, the KML file is imported into the MAXQDA project itself. Storing it in the project file makes it easier to pass on the entire project with all the associated KML files to the other members of the research team.

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



Geolinks can be easily viewed in the “Overview of links” table, available in the “Document System” at multiple levels (project, document group or document). In the first column of the chart, geolinks are marked with an orange locator symbol. If you click on the column header of this column, the entire column will be sorted by the symbols, so it is possible to obtain a successive list of all geolinks.

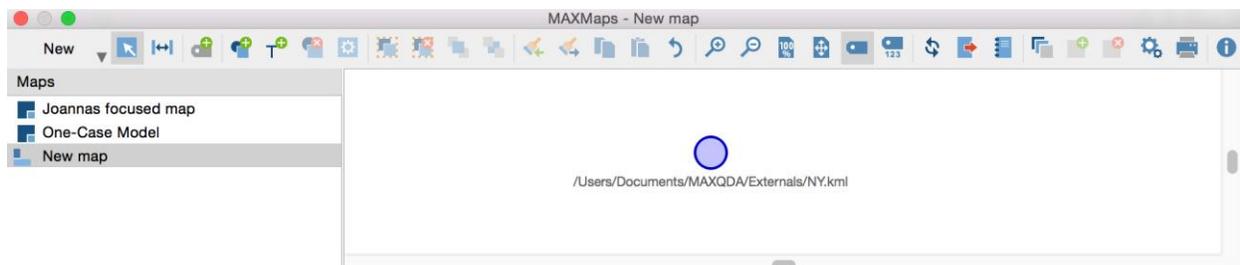
	Document 1	Begin 1	Preview 1	Document 2	Begin 2	Preview 2
	Teresa	53	NY			/Users/Jona/D...
	Joanna	7	areer n			http://www.oe...
	Joanna	8	Community He...	George	15	I don't smoke ...
	George	15	I don't smoke ...	Joanna	8	Community He...

“Overview of links” with geolinks indicated with the orange locator symbol

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.

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	Begin 1	Preview 1	Document 2	Begin 2	Preview 2
	Kim	55	New York			/Users/Jona/D...
	Teresa	53	NY			/Users/Jona/D...
	Joanna	7	areer n			http://www.oe...
	George	15	I don't smoke ...	Joanna	8	Community He...
	George	20	fams pretty good	Jon	16	njoy my home ...
	Joanna	8	Community He...	George	15	I don't smoke ...

“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

External links and web links

Geolinks

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, RTF, or TXT (tab delimited) format.



9 Codes and How to Code

9.1 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 text strings containing up to 63 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.

9.2 The “Code System”

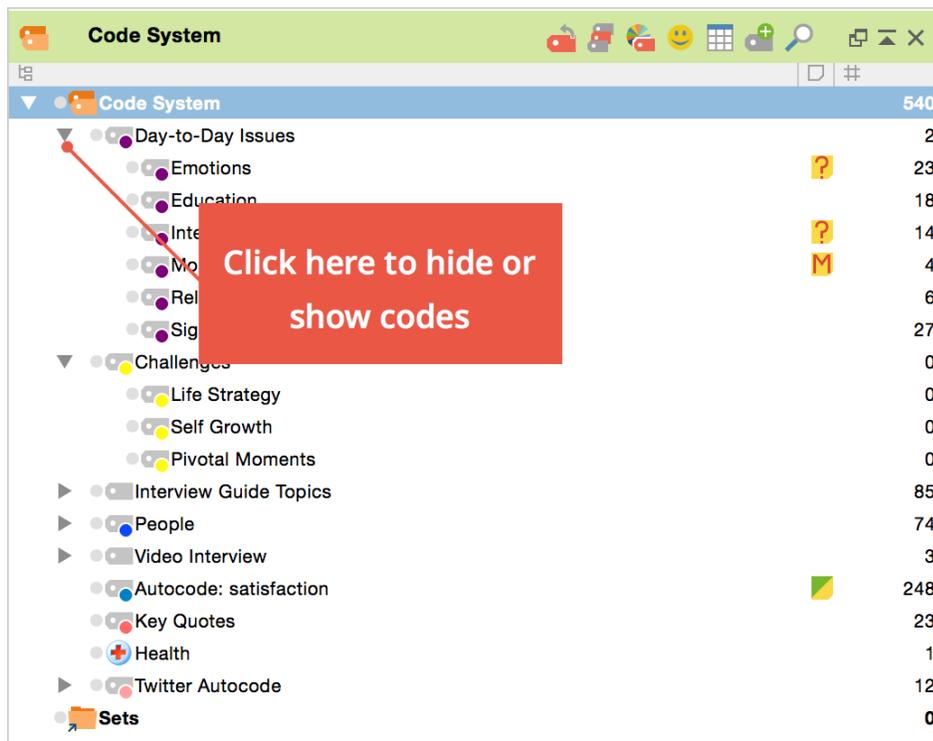
Codes have a hierarchical structure, meaning you can create multiple subcodes, followed by subcodes of subcodes. All of the codes are shown in the “Code System” window.

At the beginning of a project, this window is empty except for the “Code System” and “Sets” icons and their associated icons. If you right-click on the top line on the term “Code System”, a context menu will open from which you can manage the “Code System” and access the various coding options.

MAXQDA’s “Code System” has the following characteristics:

- A code is a string with a maximum of 63 characters consisting of one or more words. A code can contain empty spaces and special characters.
- The number of codes is unlimited.
- The hierarchical structure can contain up to ten levels.
- Codes can be assigned a color.
- The so-called color codes play a special role. They are like text markers and change the background color of the marked text.
- emoticons also play a specific role. An emoticon symbol appears in the “Code System” in the place of the code symbol, with pre-defined names that can be changed.
- Beginning with MAXQDA 12, there are also special codes for the participants of a focus group. These codes can be identified by this icon . These codes can perform special functions.

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 or Mac Finder 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

You can click on the triangle symbol before the code to reveal or hide its subcodes.

Tip: With the function **Collapse all subcodes**, which is accessible from the context menu of the top level of the “Code System”, you can conveniently collapse all codes so only the top level codes will be visible.

Moving codes within the “Code System”

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

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.
-  **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.
-  **Display emoticons only** /  **Display codes and emoticons** – reduces the display in the “Code System” window to emoticons.
-  **Change to table view** /  **Change to standard view** – switches between tree view, and table view of the code system.
-  **New code** – adds new code into the code system.
-  **Display search toolbar** – allows you to search for a specific code.
-  **Undock window**
-  **Maximize window**
-  **Hide window**

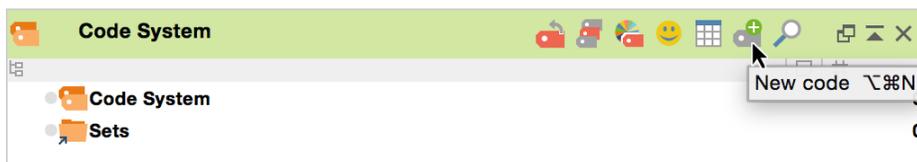
In addition to using the toolbar to access functions in the “Code System,” you can also use the context menus that appear when you right-click on various icons in the window (e.g. on a code or the “Code System” icon, etc.).

9.3 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.

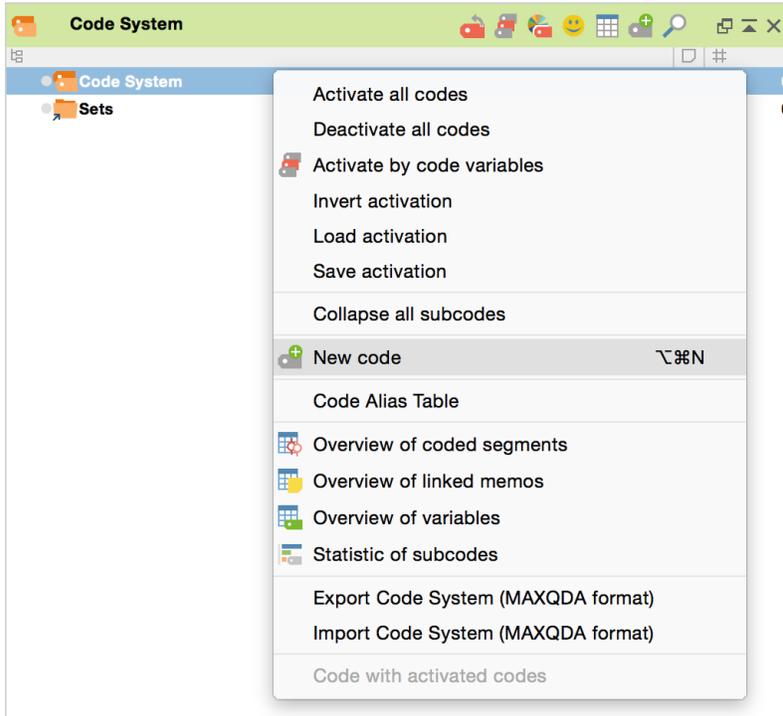
In order to create a new code at the highest level, we can do one of three things:

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



Toolbar icon for inserting a new code

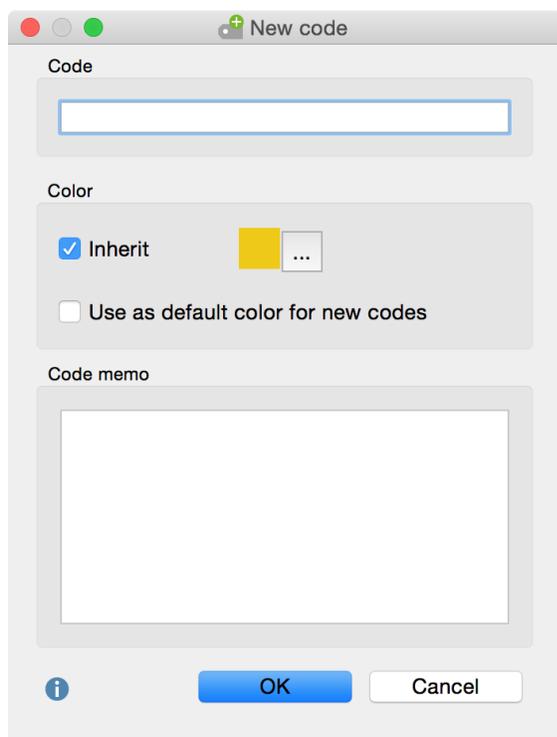
- Another option is to right-click on the Code System row and select **New code** from the menu that appears.



Creating a new code with the context menu

- The third option is to create a new code by using the keyboard shortcut **Alt+N (Windows)** or **cmd+Alt+N (Mac)**. 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.

If you select the option **Use as default color for new codes**, all newly created codes in the project will use the chosen color, e.g. In-vivo codes. Of course you can change this default color each time you create a new code using this dialog.

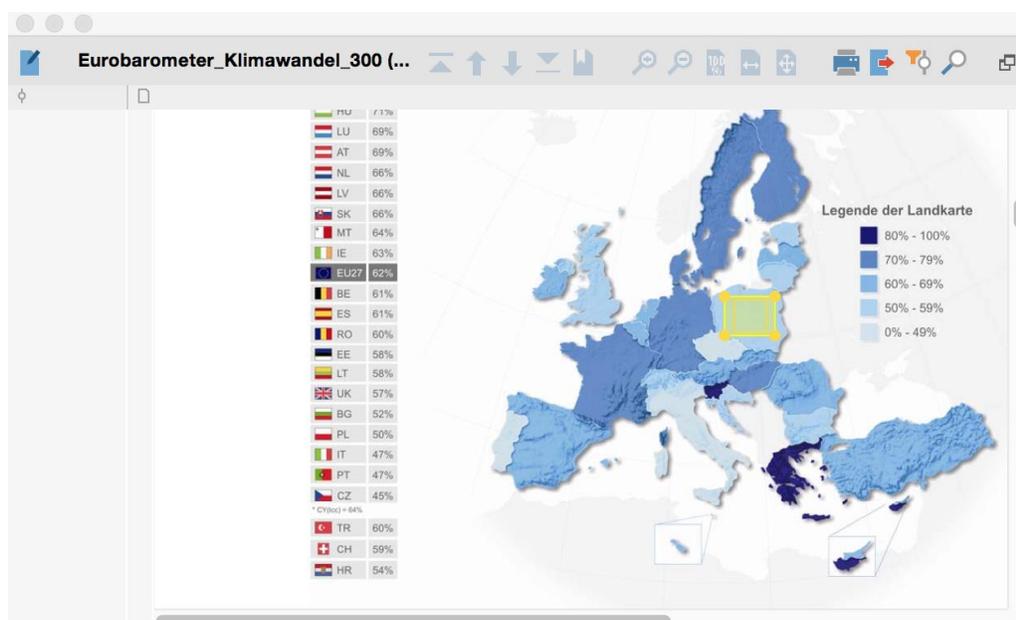
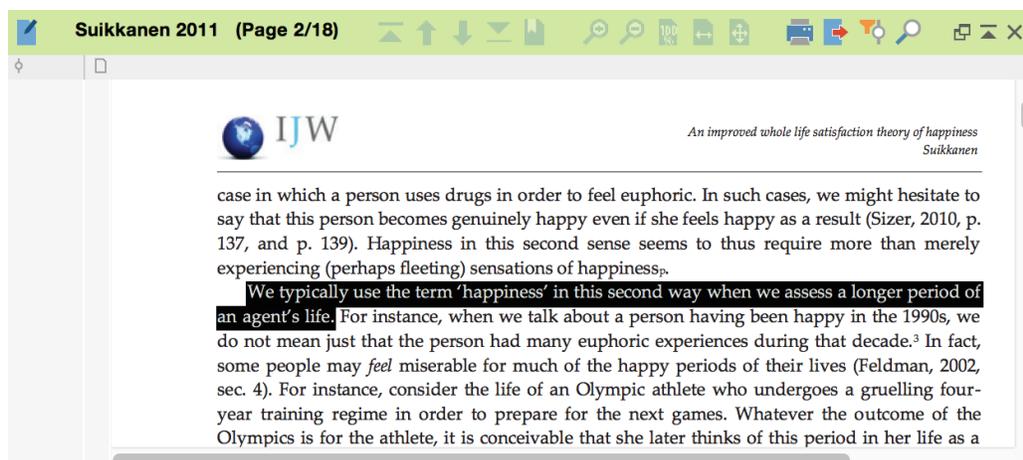
Creating Subcodes

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 (Windows)** or **cmd+alt+N (Mac)** keyboard shortcut or the **New code**  icon from the toolbar. It should however be noted that the code for which you wish to create a subcode should be highlighted in blue.

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.



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. *Coding with newly defined (free) codes:* 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. *Simultaneous coding with multiple codes*: A segment is coded with the activated codes.
7. *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.
8. *Coding with MAXMaps*: Selected segments are dragged to codes on a map.
9. *Coding with code favorites*: Selected codes are displayed in a separate window, from which they can be easily applied to segments to be coded.
10. *Coding with self-defined keyboard shortcuts*: Up to nine codes can be assigned their own keyboard shortcut, which can be used to quickly code a marked segment.
11. *Coding with symbols and emoticons*: Selected segments are coded with emoticons, 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 Using Drag & Drop

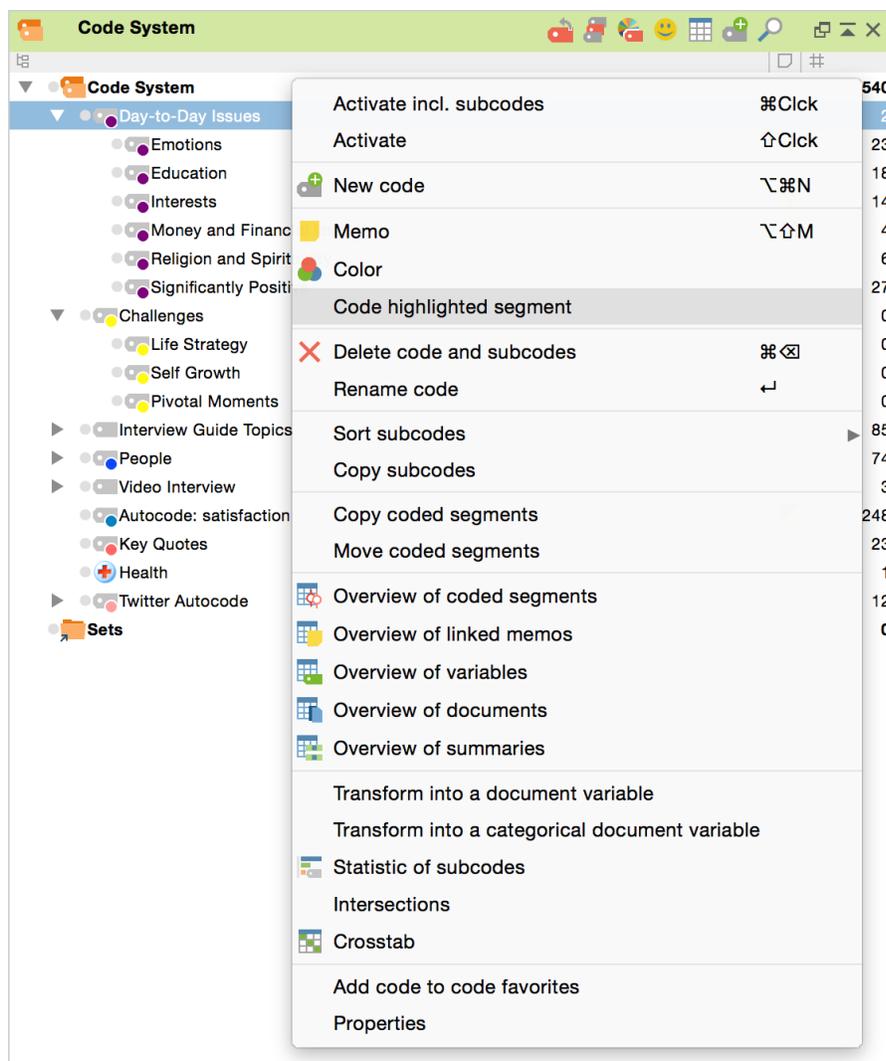
Left-click and hold on the selected text and move the mouse pointer to the name of the code in the “Code System.” Release the mouse button to assign the segment to this code, as you can see in the gray column next to the document in the “Document Browser” window. The reverse also works, i.e. you can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

Tip 1: The same segment can be assigned multiple codes in a row.

Tip 2: You can highlight and drag a text segment in the upper preview part of the “Overview of coded segments” window, too.

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 highlighted segment** from the context menu.



Using the context menu in the "Code System"

3. Coding with newly defined codes

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 (Windows)** or **cmd+Alt+W (Mac)**. 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. Coding In-vivo

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 (Windows)** or **cmd+Alt+I (Mac)** 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 **Code highlighted segment** (not the in-vivo coding button!). MAXQDA expands the coded segment automatically.

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

5. 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+C (Windows)** or **cmd+Alt+C (Mac)**.

6. 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 **Code with activated codes**.

Note: The other coding options including highlight coding, MAXMaps, code favorites, keyboard shortcuts and emoticons are discussed in separate sections.

9.5 Highlight Coding / Color Coding

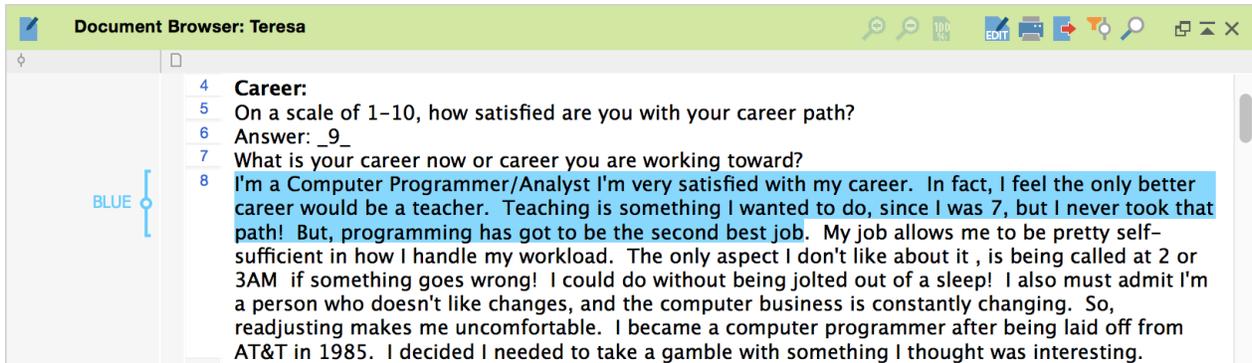
Color coding text is a technique that is especially useful at the beginning of the analysis process. It is similar to the marking of text in a book with a highlighter. It allows you to mark the passages you find particularly interesting when reading through the text for the first time. Before you decide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

Before you begin color coding, you must ensure that the “Code” toolbar is visible. This toolbar can be activated via the “View” menu. The Code toolbar contains five highlight coding colors.



"Code" toolbar with five highlight coding buttons

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 accordingly. A new coding stripe will be visible in the coding column next to the document.

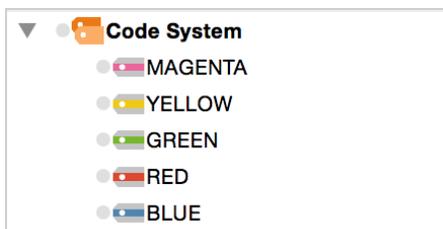


A section of text coded with "GREEN"

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:



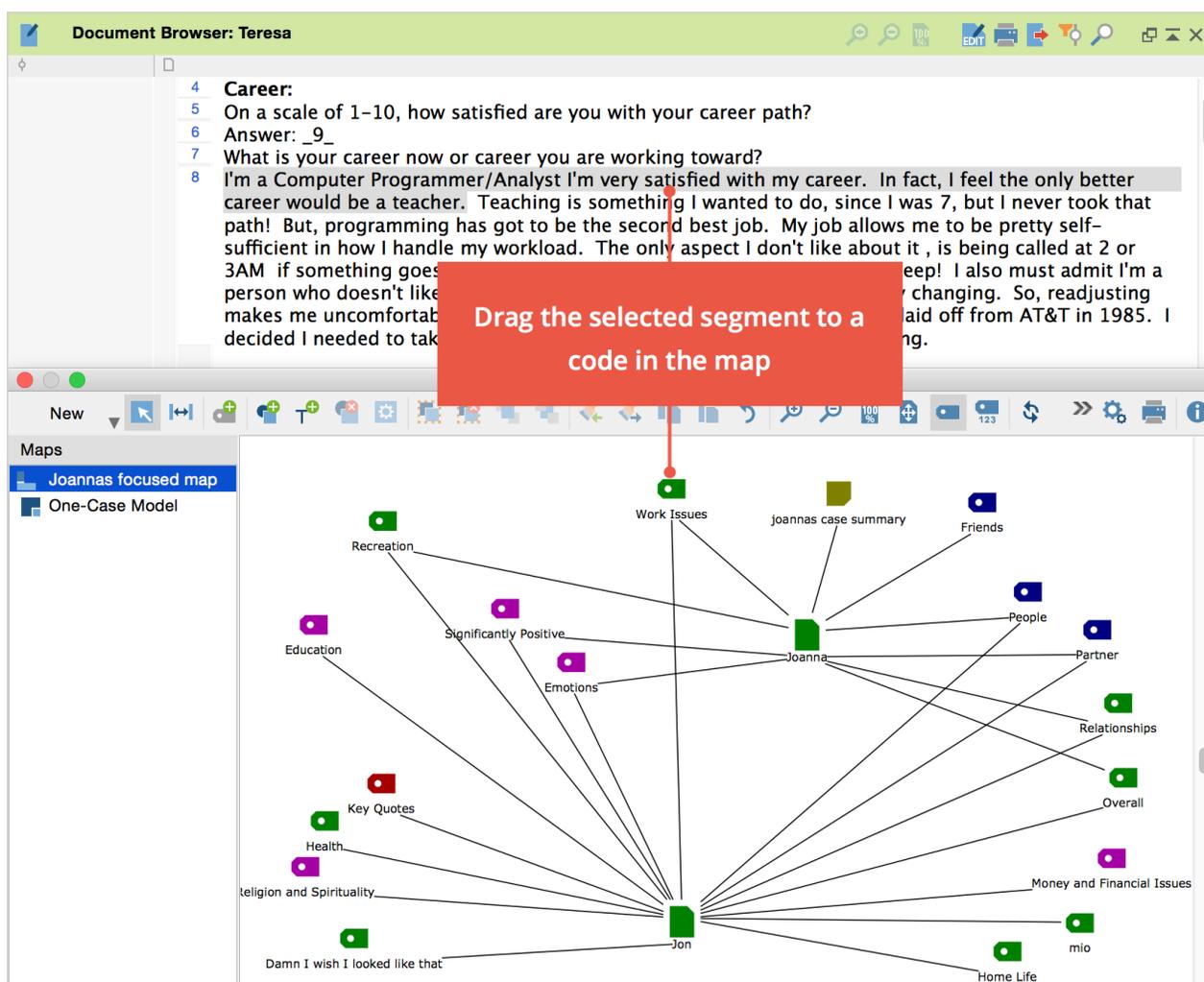
Symbol for a color code in the "Code System"

9.6 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

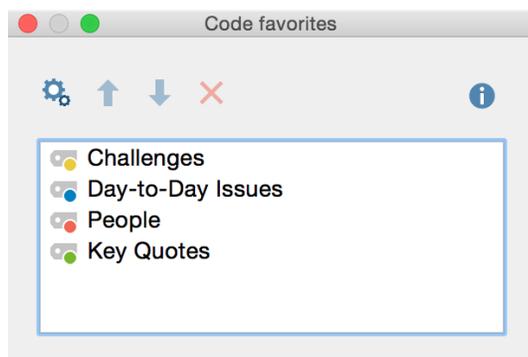


9.7 Coding with the Code Favorites

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**.

Tip: You can also drag and drop codes from the “Code System” into the open “Code favorites” window.



The list of code favorites

You can now begin to code. Simply highlight the segment as usual and click on the code in your list of Code favorites. You can now see in the coding column on the left side of the “Document Browser” that the segments have been coded.

Tip: You can also drag and drop a highlighted segment on a code in the code favorites window or vice versa drag and drop a code onto a highlighted segment.

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.

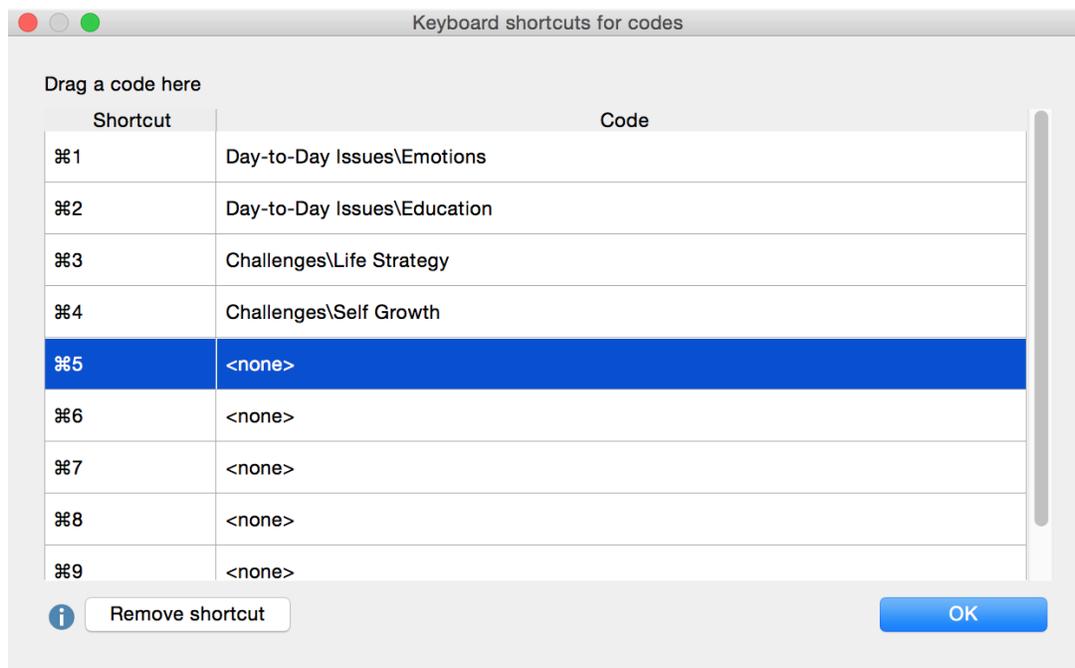
Rearrange Sequence of Codes or Delete Codes

If you want to rearrange the sequence of the codes, click on the icon **Edit code favorites**. Now, highlight codes with the mouse and use the arrow up and down icons to move codes up and down. To delete a highlighted code, click on the red X labelled **Remove selected codes from code favorites** at the top of the window.

Click again on the **Edit code favorites** icon to continue with your coding work. If you drag a highlighted segment onto a code in the code favorites window the “Edit” modus will be switched off automatically.

9.8 Coding with Keyboard Shortcuts

For quick coding using your keyboard, you can assign keyboard shortcuts for up to nine codes. To do so, select the menu option **Codes > Keyboard shortcuts for codes**:



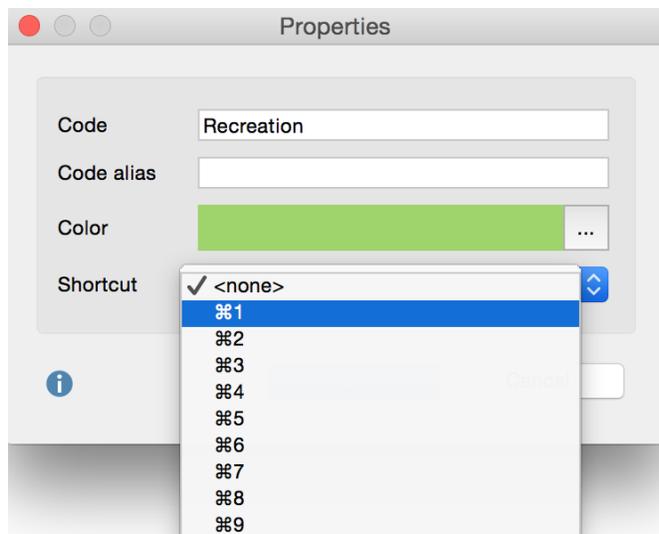
The “Keyboard shortcuts for codes” window

In the left column you will see the available keyboard shortcuts Ctrl + 1 to Ctrl + 9 (Windows) or cmd + 1 to cmd + 9 (Mac). You can drag and drop a code from the list of codes into one of the nine rows, thus assigning a keyboard shortcut to the code. If a shortcut already been assigned, it will be overwritten by this action. For clarity, the name of the code appears in the right column, along with the parent code if necessary – not the entire code hierarchy.

To cancel the assignment of a shortcut to a code, click on the appropriate row and click the **Remove shortcut** button.

For coding, it may be helpful to leave the keyboard shortcuts window open until you have memorized the shortcuts. It does not matter if the window is open or not when coding: Simply highlight a segment in the Document Browser and hit the selected shortcut keys. MAXQDA will then encode the selected segment with the associated code.

Tip: When you right-click on a code and select **Properties**, a window will open in which you can assign the code directly to one of the nine available keyboard shortcuts. If the shortcut is already in use for a different code, MAXQDA will ask if you want to reassign the shortcut to this code.



Tastenkürzel über die Eigenschaften eines Codes zuordnen

9.9 Emoticode: Coding 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 over 300 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.

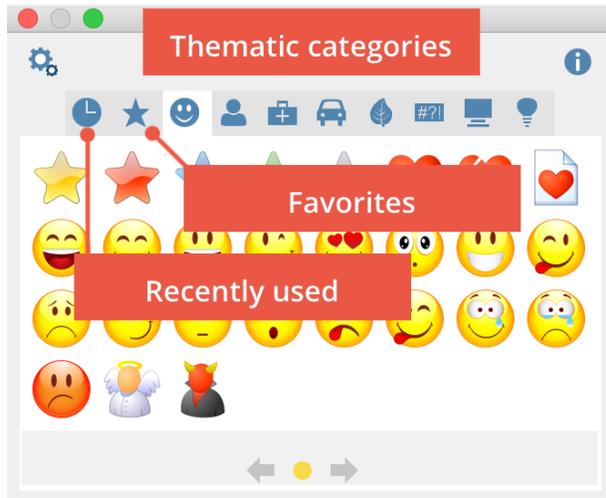
Calling up the Emoticode Window

In order to code using emotICODES, you must first open the emoticode window. You can do so by clicking the corresponding button in the “Code” toolbar.



Activate emoticode function

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

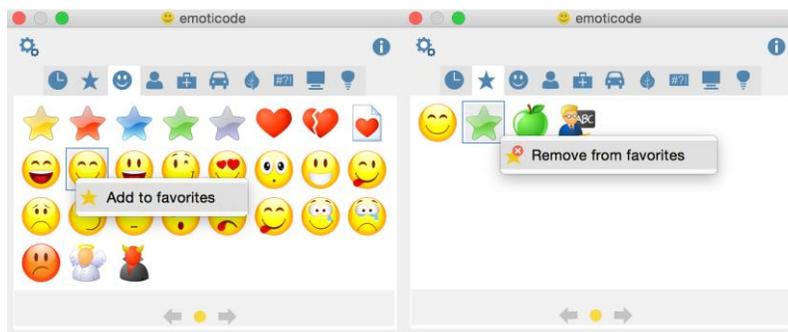


The emoticode window

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.

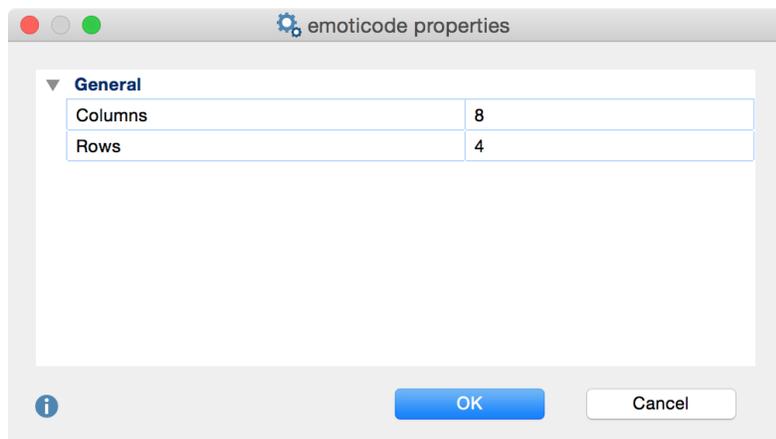
When you click on the clock icon, MAXQDA displays the most recently used symbols and emoticons. In addition, you can add frequently used symbols to favorites. To do so, right-click the symbol and select **Add to favorites**. The symbol is then shown additionally in the 2nd tab from the left, marked with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



Add and remove symbols from favorites

Options for the emoticode Window

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



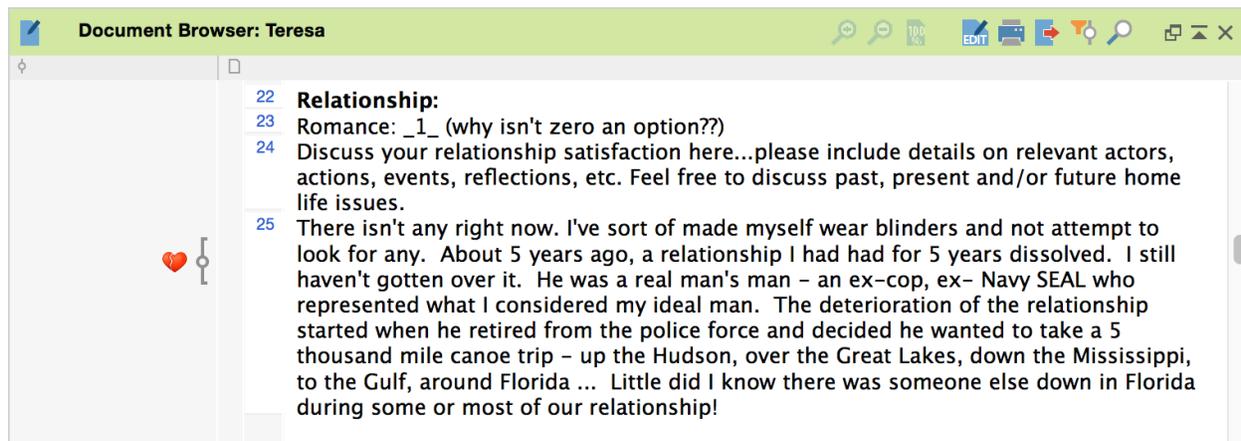
emoticode properties window

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.

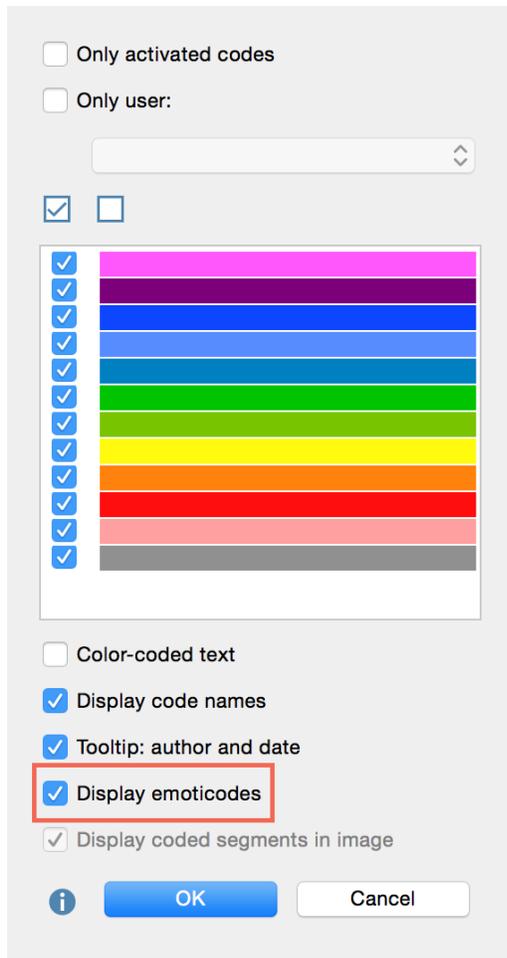
Coding Display in the “Document Browser”

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 (grey); it is not possible to assign a different color.



Coding stripe with emoticode in the “Document Browser”

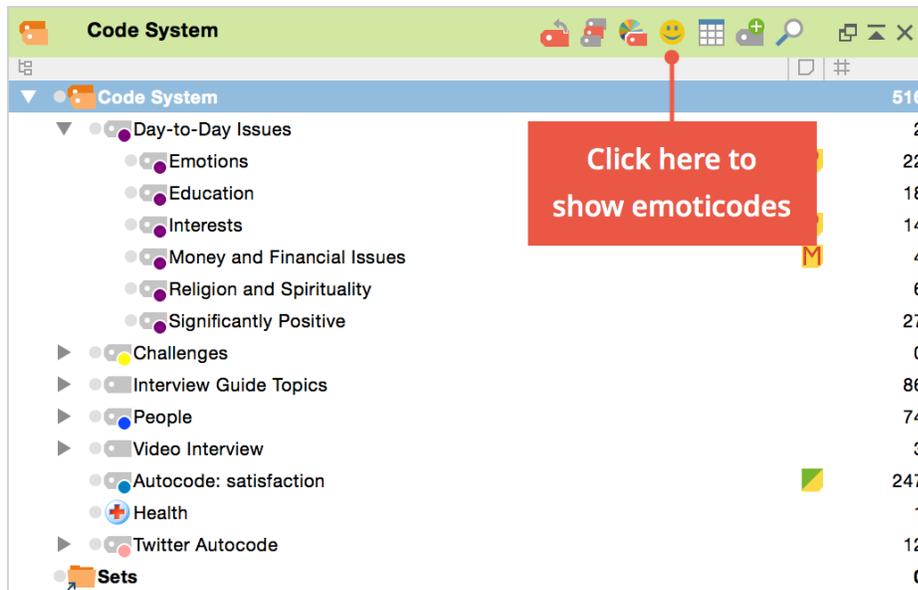
In the selection window for the displayed coding stripe (which can be called up with a right-click on the mouse in the visualization area), you can hide or show coding stripes with emotICODES in the “Document Browser.”



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 source list in the “Retrieved Segments.” In the table view, as in the “Overview of coded segments,” emoticons are displayed instead of the circle containing the code colors, allowing the entire table to be sorted by emoticons.

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.

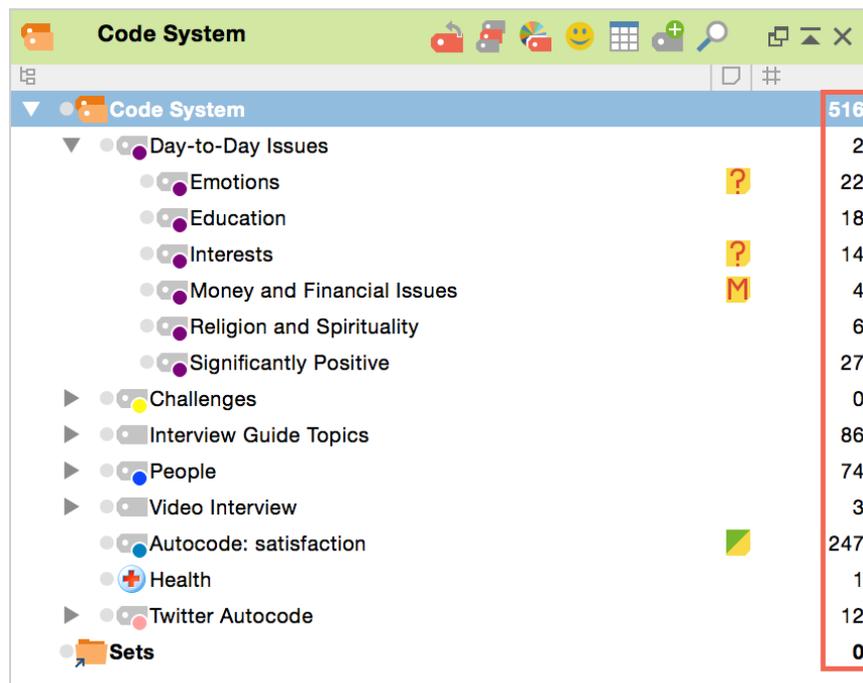
In the Document Comparison Chart each code that is present in the paragraph is represented by a colored section of the bar. Code colors, not emoticons, are used, with the color green indicating emoticon codes.

The Document Portrait is displayed with emoticon codes 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 grey is used to indicate emoticon codes.

9.10 Displaying Code Frequency in the “Code System”

Information on if and how many coded segments are assigned to a specific code can be found in the “Code System.” This information is displayed in the frequency column to the right of the code name.

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.

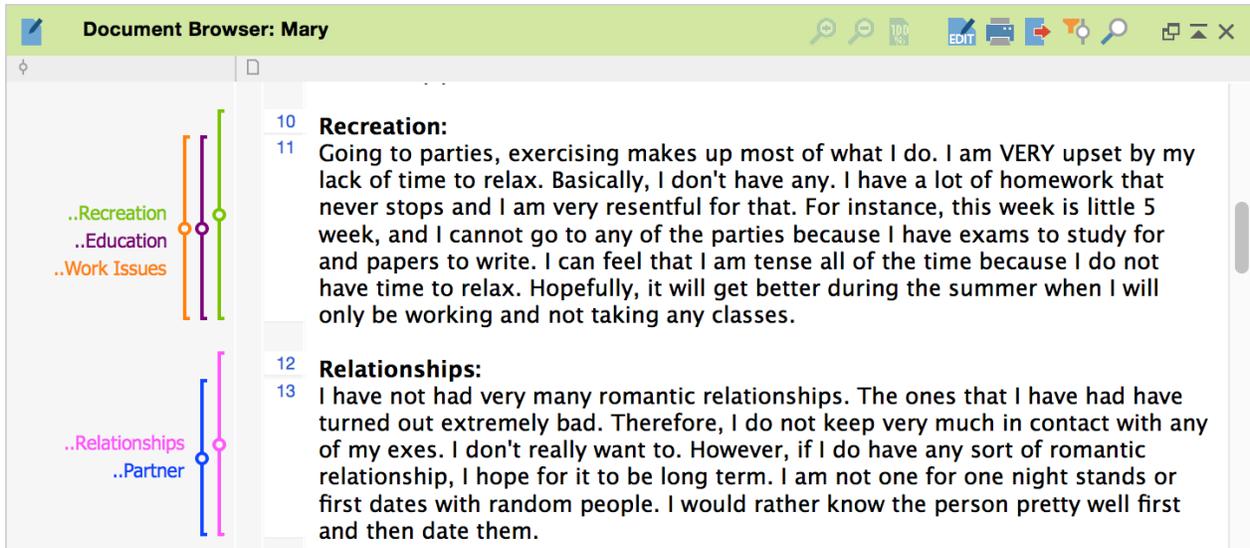


Information on the number of coded segments

When you “collapse” a subcode into a code by clicking the „>” symbol in front of the code, the frequency of the subcode will be added to the frequency of the top-level code. Therefore, for a collapsed code, MAXQDA displays the number of segments that were coded with this code including all of its subcodes. To change this setting so that only the frequency of highest-level codes is displayed, go to **Project > Preferences (Windows)** or **MAXQDA 12 > Preferences (Mac)** and deselect **Sum up subcodes** in 'Code System' window.

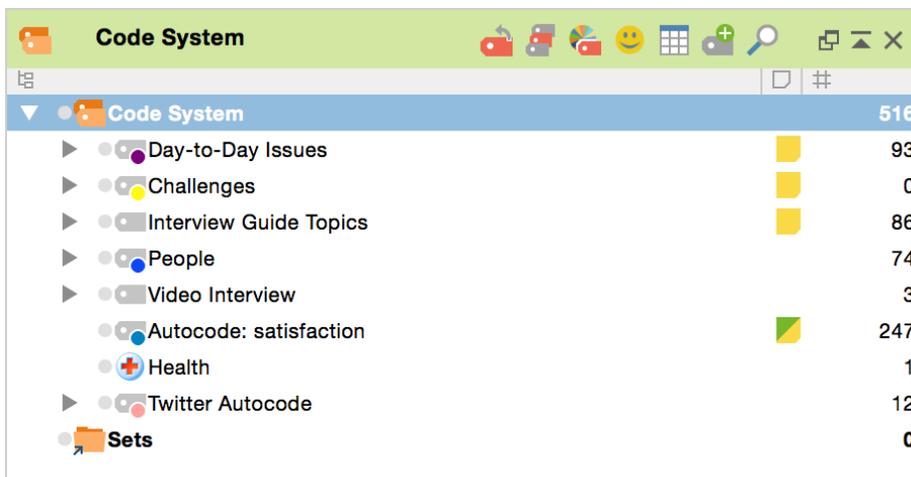
9.11 Assigning Colors to a Code

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.

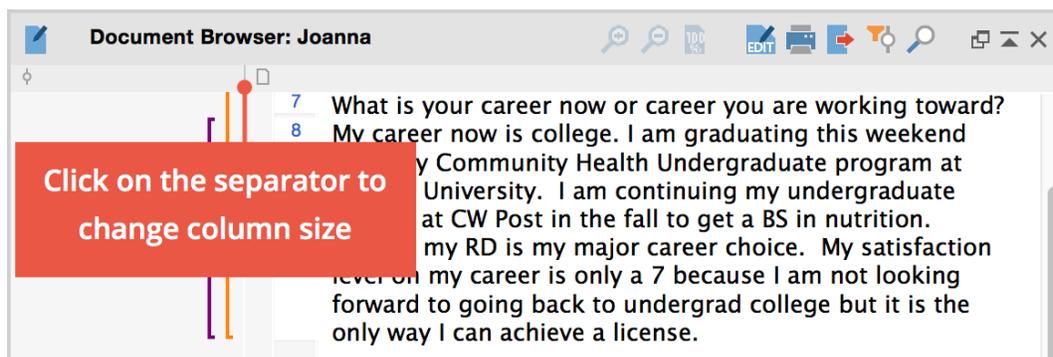
	Comment	Document gro...	Document name	Code	Begin	End	Preview
○		New York	Joanna	Day-to-Day Issues\Education	12	12	Overall I am pr...
○		New York	Joanna	Interview Guide Topics\Work Issues	12	12	Overall I am pr...
○		New York	Joanna	Interview Guide Topics\Home Life	13	16	Home Life: On ...
○		New York	Joanna	People\Parents	16	16	My home life i...
○		New York	Joanna	Interview Guide Topics\Recreation	17	22	Recreation: On...
○		New York	Joanna	People\Friends	20	22	Please list recr...
○		New York	Joanna	Interview Guide Topics\Relationships	23	24	Relationships: ...
○		New York	Joanna	People\Friends	24	24	I can definitel...
○		New York	Joanna	People\Parents	24	24	I can definitel...
○		New York	Joanna	People\Partner	24	24	I can definitel...
○		New York	Joanna	Day-to-Day Issues\Significantly Positive	27	27	Failure does n...

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.

9.12 Visualizing 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.

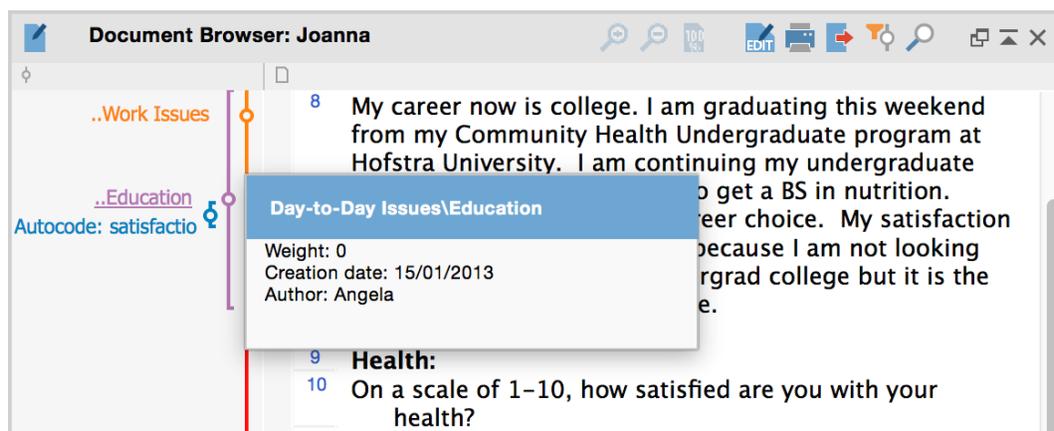


Visualization of coding stripes on the left side of the "Document Browser"



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.

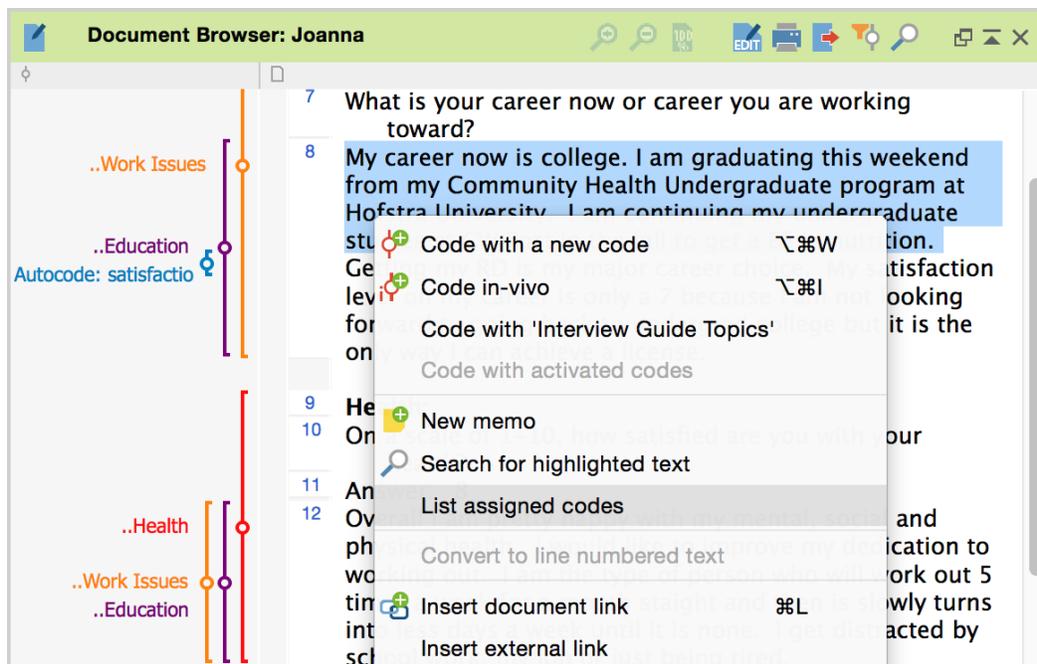


Tooltip appearing from the coding stripe

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.”

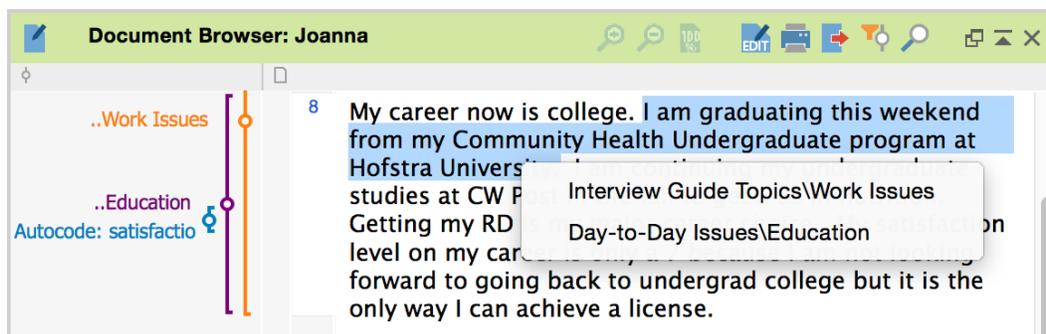
If there are many coded segments, it can also be difficult to figure out exactly which codename belongs to which coding stripe. This can be immediately identified when you move the mouse over a coding stripe, at which moment the code name will appear brighter and the code assignment will be displayed.

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.



"List 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

9.13 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:

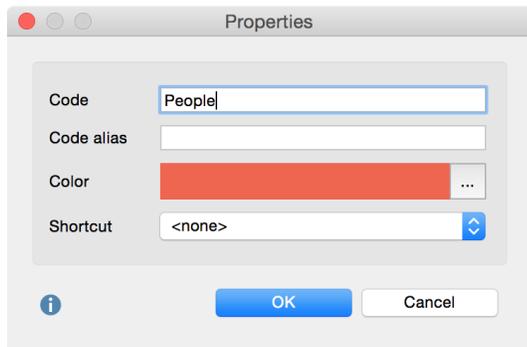
- You can choose to only visualize activated codes.
- You can choose to visualize coded segments created by certain users.
- You can choose to only visualize coded segments of a certain color.
- You can choose whether to change the text color of the text in the document to match the color of the code 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.

9.14 The Properties Window for Codes

You can right click on the name of any code and choose Properties in the drop-down menu in order to open the Properties window:



Properties window for a code

In this Properties window, you can...

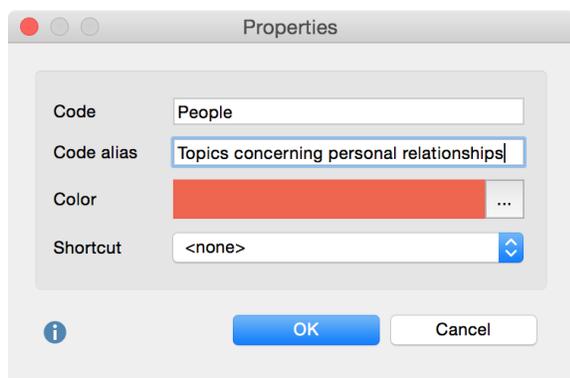
- Change the name of the code (max. 63 characters available),
- Assign or adjust a Code Alias (max. 255 characters),
- Modify the code color,
- Assign a keyboard shortcut.

Since the number of characters for a code is limited to 63, longer code designations can be assigned as code aliases. For example, they may be exported instead of the code names when using the SmartPublisher.

9.15 Creating a Code Alias

Code names in MAXQDA can be 63 characters in length. However, it is sometimes desirable to note a shorter or longer description in addition to the code name. This allows you to employ an automatically generated report with selected coded segments, for example in Smart Publisher.

To create a code alias for a code, right-click on the code in the Code System and select "Properties". This will open a window where you can enter a code alias, among other options.



Creating a Code Alias in the “Code Properties” Window

Alternatively, you can click **Codes > Code Alias Table**, which will generate a table in which you can conveniently enter multiple code aliases, and view for which codes an alias has already been assigned.

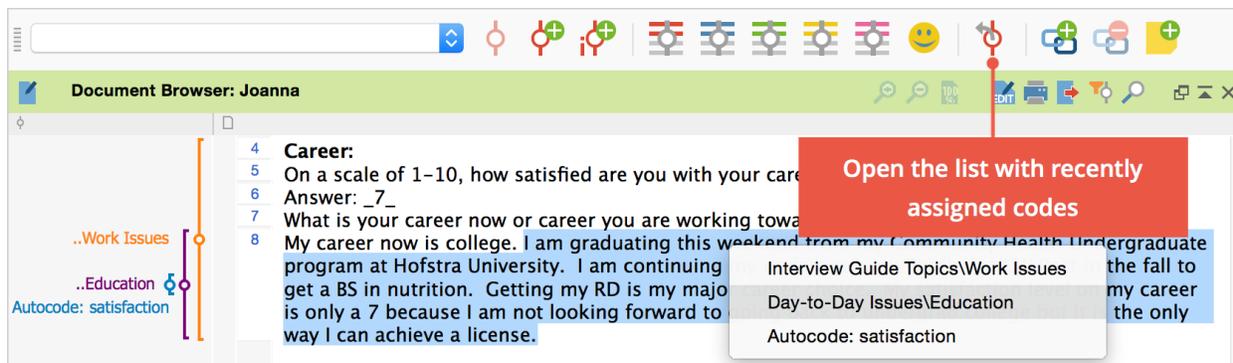
Parent code	Code	Code alias	All coded segments %
	Day-to-Day Issues	Issues of everyday life	12,50
	People	Topics concerning personal relationships	87,50
	Challenges	Special challenges in interviewees lives	0,00
	Interview Guide Topics		0,00

Code Alias Table

9.16 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 information box and select **Delete** in order to delete the selected code.

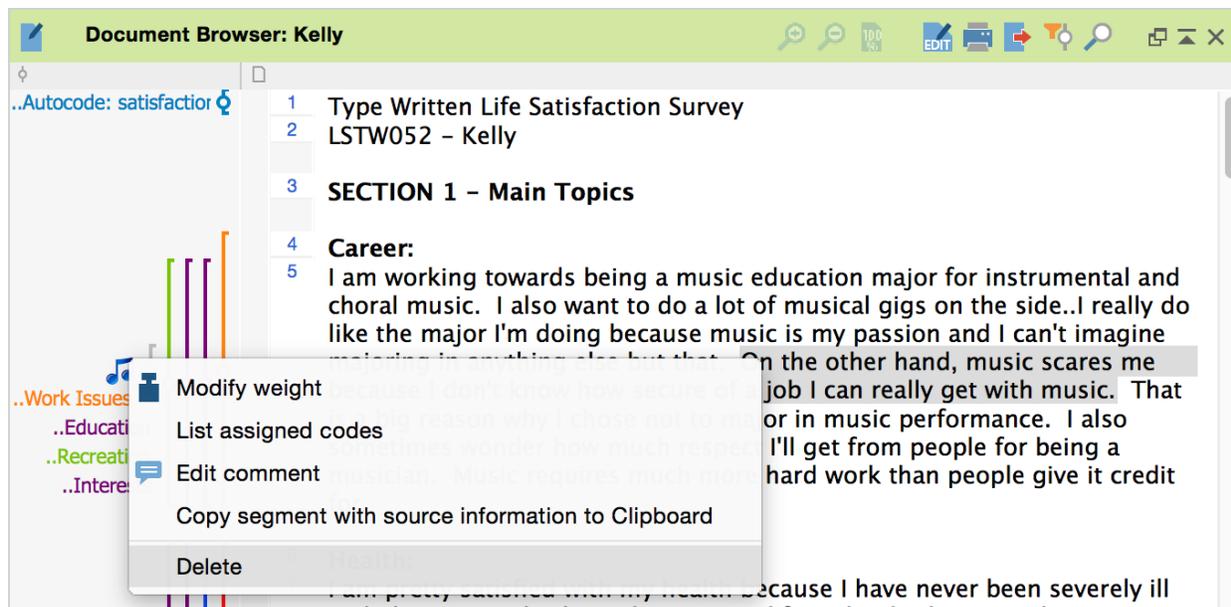
Note: If a code is deleted from the Code System, the code is removed from all segments that were coded with that code.

9.17 Deleting a Coded Segment

MAXQDA offers the option of deleting single or multiple codes simultaneously, from several locations.

Deleting coded segments in the “Document Browser” window

1. Move the mouse over the coding stripe or over the code name.
2. Right-click and select **Delete**.
3. MAXQDA will require confirmation before deleting the coded segment.

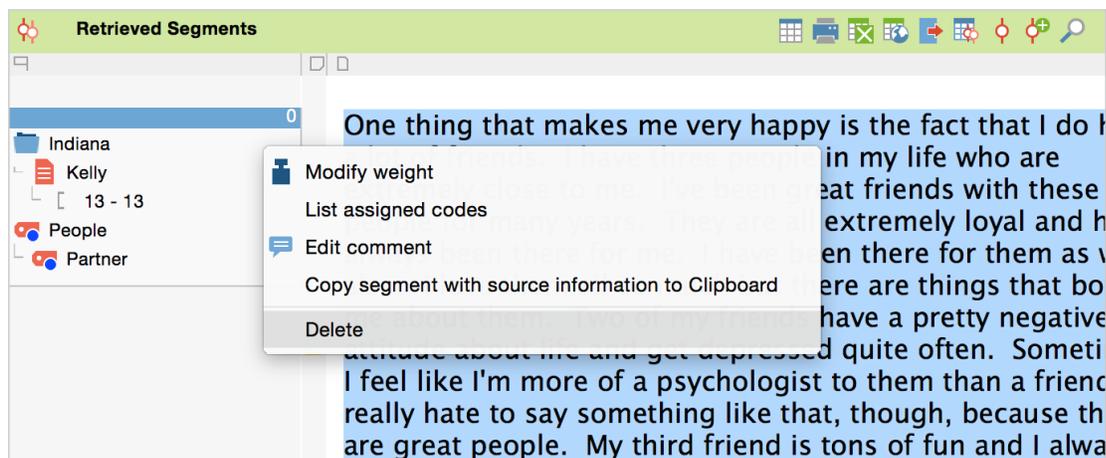


Deleting a coded segment in the “Document Browser” window

Deleting coded segments in the “Retrieved Segments” window

1. Right-click on the source data next to the coded segment.
2. Select **Delete**.
3. MAXQDA will require confirmation before deleting the coded segment.

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

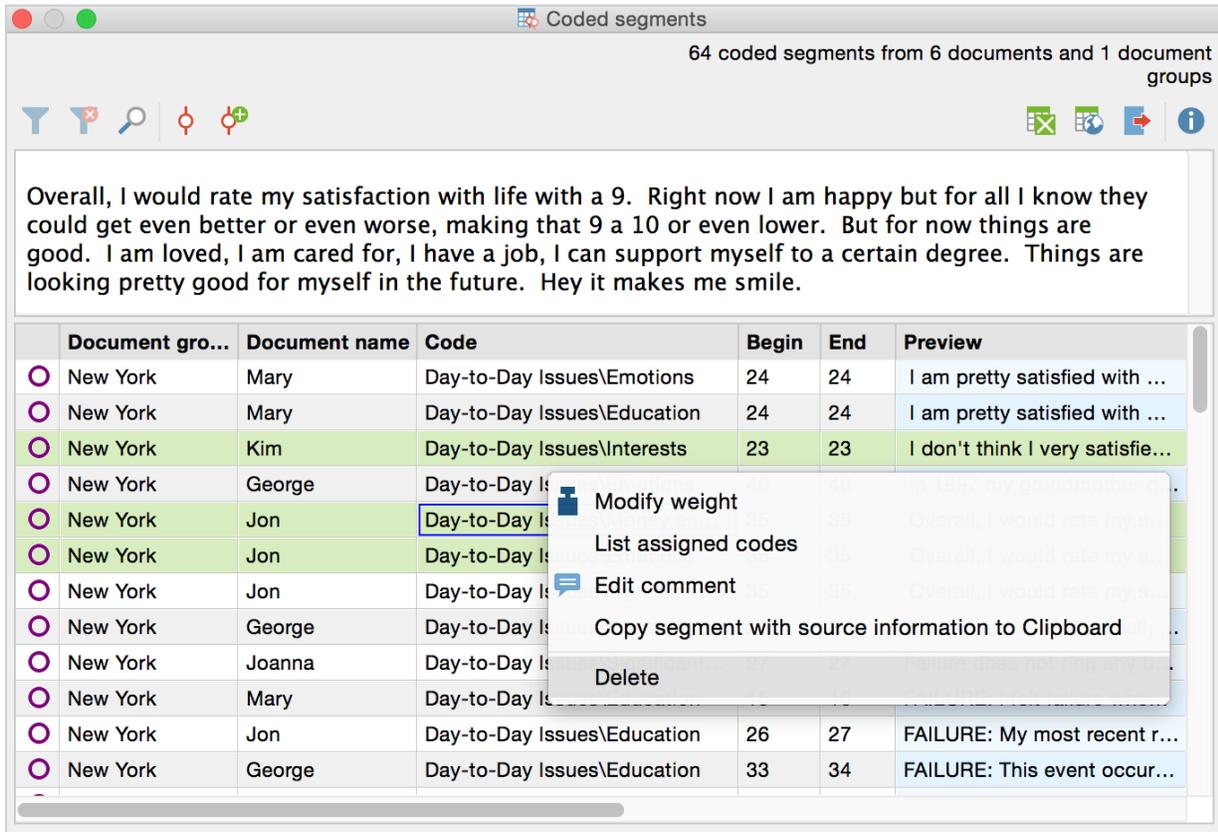


Deleting a coded segment in the “Retrieved Segments” window

Deleting coded segments in the “Overview of coded segments” or in the “Retrieved Segments” window in table view

1. Right-click on a row or select multiple rows while holding down the Ctrl key (Windows) or cmd key (Mac) to simultaneously delete multiple coded segments.
2. Select **Delete**.

MAXQDA will require confirmation before deleting the coded segment.



The screenshot shows the 'Coded segments' window in MAXQDA. At the top, it indicates '64 coded segments from 6 documents and 1 document groups'. Below this is a text preview of a segment: '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.'

Below the preview is a table of coded segments. A context menu is open over one of the rows, showing options: 'Modify weight', 'List assigned codes', 'Edit comment', 'Copy segment with source information to Clipboard', and 'Delete'.

	Document gro...	Document name	Code	Begin	End	Preview
<input type="radio"/>	New York	Mary	Day-to-Day Issues\Emotions	24	24	I am pretty satisfied with ...
<input type="radio"/>	New York	Mary	Day-to-Day Issues\Education	24	24	I am pretty satisfied with ...
<input type="radio"/>	New York	Kim	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	George	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Jon	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Jon	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Jon	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	George	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Joanna	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Mary	Day-to-Day Issues\Interests	23	23	I don't think I very satisfie...
<input type="radio"/>	New York	Jon	Day-to-Day Issues\Education	26	27	FAILURE: My most recent r...
<input type="radio"/>	New York	George	Day-to-Day Issues\Education	33	34	FAILURE: This event occur...

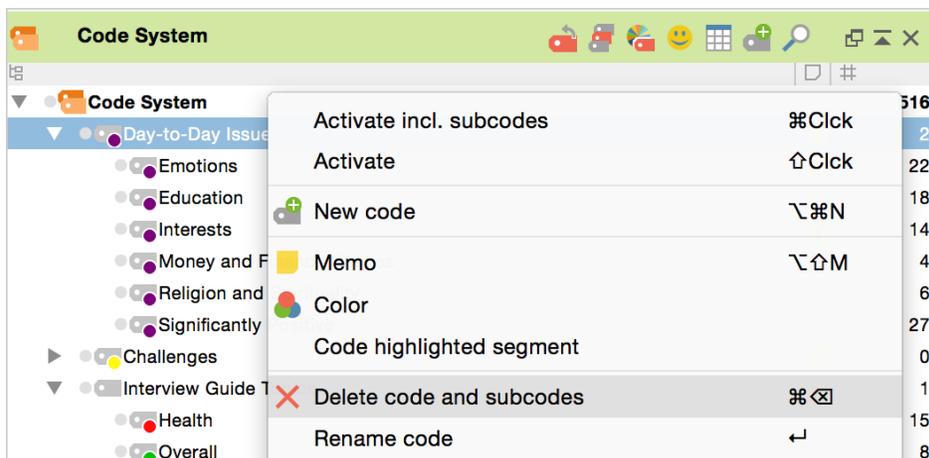
Deleting multiple coded segments in the "Overview of Codes"

9.18 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 (Windows)** or **cmd+Backspace (Mac)**.



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 (Windows) or **cmd+Del** (Mac).

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 (Windows) or **cmd** key (Mac) and then right-clicking and selecting **Delete code(s)** from the context menu.

Codes can also be deleted in this manner in the “**Overview of Codes**,” accessible via the **Code** menu or the content menu in the “Document System”.

9.19 Modifying Coded Segments

There are various ways to modify coded segments:

1. By assigning a new code.
2. By assigning another code in the place of an existing code.
3. By modifying the segment boundaries, meaning enlarging or reducing the coded segment while the code remains in place.

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

Coding a Segment With More Than One Code

After having coded a segment, the segment remains selected (with the exception of highlight-coded segments). It is possible to attach more codes to the same segment, for example using drag & drop.

If you want to assign one or more codes later, the segment must be selected again. This is easiest if you click on the coding stripe of this segment with the left mouse button. The segment will be highlighted again as in the original text, and you can assign a code in the usual way, either with Drag & Drop, by right-clicking on the desired new code in the "Code System" and selecting **Code highlighted segment**, with the **Code** quick button, as well as other MAXQDA coding options.

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.

This can be easily accomplished, as long as the coded segment is displayed in the "Retrieved segments" window:

1. Click on the source data next to the segment
2. Drag the segment to the desired code.
3. The new code will automatically be assigned to the coded segment. If the other code is not activated, it may be that the coded segment was removed from the "Retrieved segments" window.
4. A coded segment can be moved from the table view or the "Overview of coded segments" in the same manner.

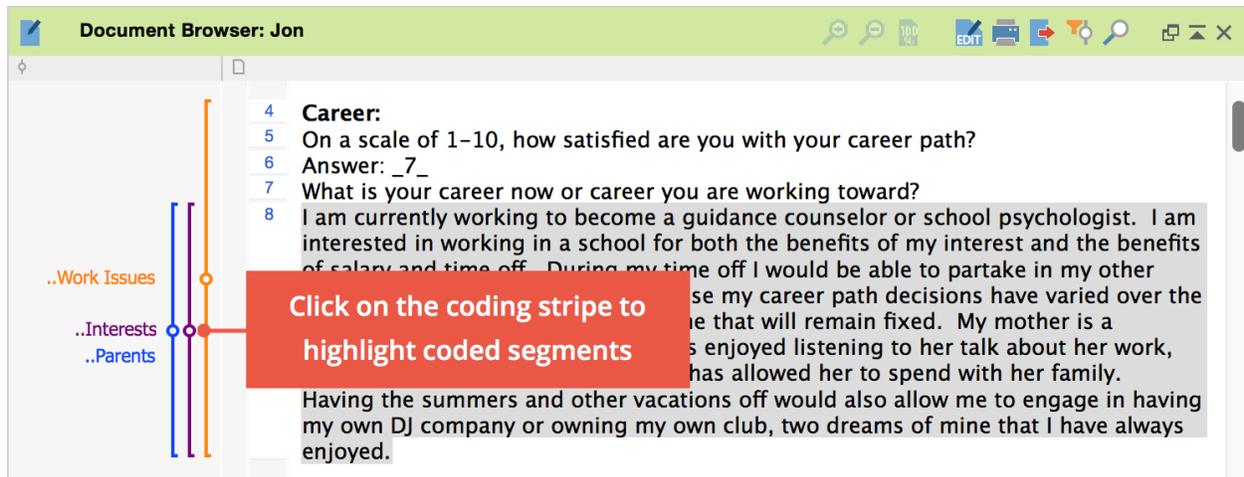
Editing the Size of a Coded Segment

Sometimes a segment may be coded outside of its logical boundaries, meaning it is too short or too long. The coded segment will therefore be difficult to understand because it is out of context. Segment boundaries can be adjusted in the following way:

1. Select the segment by clicking on the corresponding coding stripe or code name in the "Document Browser". The segment is now highlighted in the original text.
2. The segment boundaries can now be redefined as usual using the mouse. Alternatively, you can right-click the coding stripe and select **Recode with highlighted segment**.

MAXQDA automatically adjusts to the newly defined segment boundaries.

Note: Existing coded image segments in image or PDF documents will only be adjusted when the newly selected area either completely includes the existing segment or when the newly selected area is completely inside the area of the existing coded segment.



Changing the size of the coded segment

While the function “Recode” moves the segment borders of a coded passage to the highlighted segment you can also extend the borders of an existing coded segment:

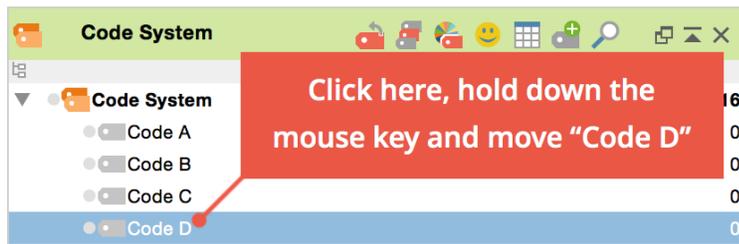
1. Highlight a passage that overlaps with the beginning or the end of an existing segment.
2. Right click on the coding stripe and choose the entry **Extend with highlighted segment**.

9.20 Moving and Sorting Codes in the “Code System”

Moving Codes

Changing the structure of the category 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.

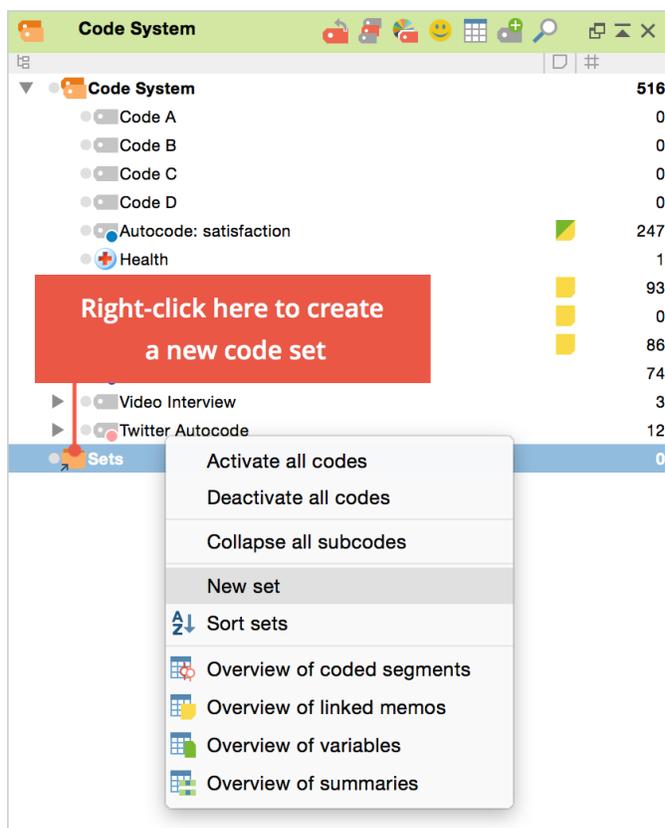
Sorting Subcodes

Subcode can be sorted in ascending and descending order by name and by frequency, by right-clicking the parent code and selecting **Sort subcodes** from the context menu.

9.21 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”

After you enter a name for the set, you can drag and drop the desired codes into the new set with the mouse. The codes can also be moved within the set or to another set using the mouse.

Tip: If you activate codes before you creating a new code set, MAXQDA places the activated codes directly into the new code set.

9.22 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**.

MAXQDA then adds the copied sub-codes in the same order as the original code. The newly inserted sub-codes do not have a color assigned to them.

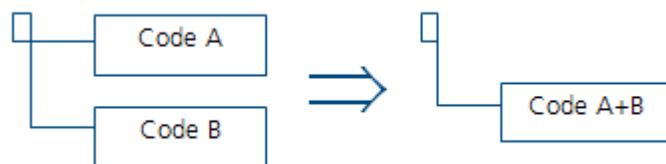
9.23 Moving all Coded Segments of a Code

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.

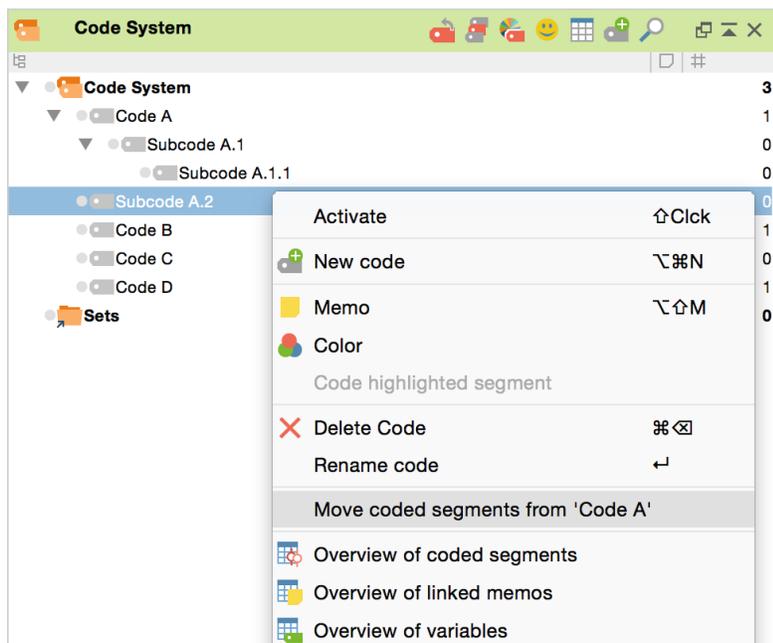
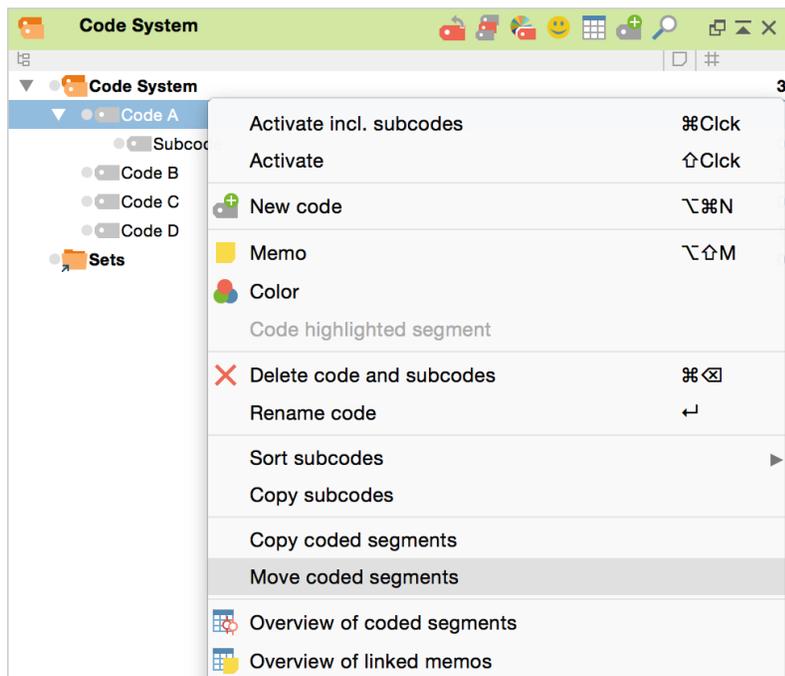
The following figure shows the result of moving coded segments from Code B to Code A. Actually, what takes place is the merging of Code A and Code B:



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.

It is of course possible that some segments that you move from "Code B" to the target code "Code A" have already been coded with the target code. MAXQDA will handle these overlapping codes as follows.

- The segment boundaries of the existing coded segments will be adapted to those of the moved coded segments.
- If both coded segments have a comment, those of the target code will be retained. The comments of the moved coded segments will be deleted.
- If only one of the coded segments has a comment, it will be retained.

Because of overlapping codes, the number of coded segments in the target code may be lesser after they are moved. If you move 10 coded segments of "Code B" to "Code A" with 20 encodings and multiple overlap, fewer than 30 encodings will be displayed in "Code A".

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."

9.24 Copying all Coded Segments of a Code

The function "Copy coded segments" is similar to the "Moving all coded segments of a code" function. The important difference is that the original code assignment will be retained; that is to say, the coded segment will be duplicated and assigned to a new code in addition to the original code.

This action is performed as follows:

1. Right-click on the selected code in the "Code System".
2. Select **Copy coded segments** from the context menu that appears.
3. Move the cursor to the target code to which you want to copy the coding added and click on it with the right mouse button.
4. Select **Insert coded segments from xx** from the context menu that appears

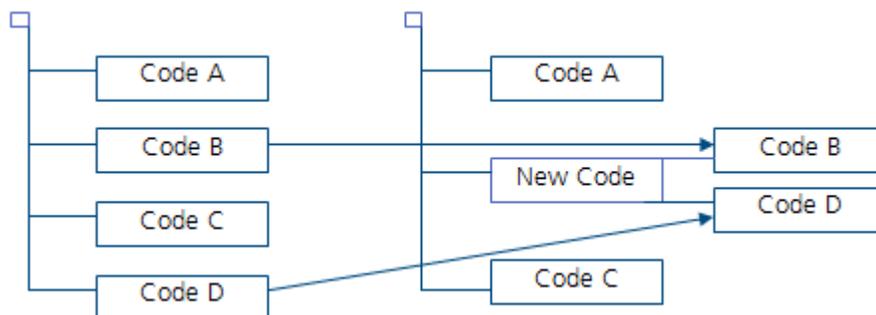
It is of course possible that some segments that you copy from "Code B" to the target code "Code A" have already been coded with the target code. MAXQDA will handle these overlapping codes as follows.

- The segment boundaries of the existing coded segments will be adapted to those of the moved coded segments.
- If both coded segments have a comment, those of the target code will be retained. The comments of the moved coded segments will be deleted.
- If only one of the coded segments has a comment, it will be retained.

Because of overlapping codes, the number of coded segments in the target code may be lesser after they are moved. If you copy 10 coded segments of "Code B" to "Code A" with 20 encodings and multiple overlap, fewer than 30 encodings will be displayed in "Code A".

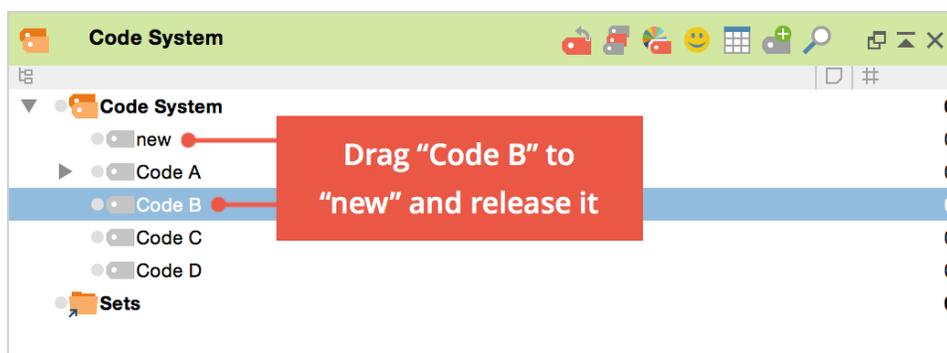
9.25 Creating a New Top-Level Code

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; it will be inserted as a subcode.
3. Do the same with Code D.



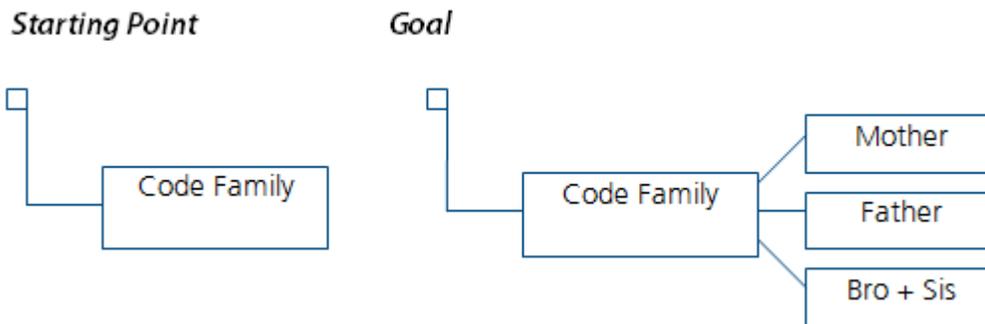
Creating a new code to hold to former codes as subcodes

9.26 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

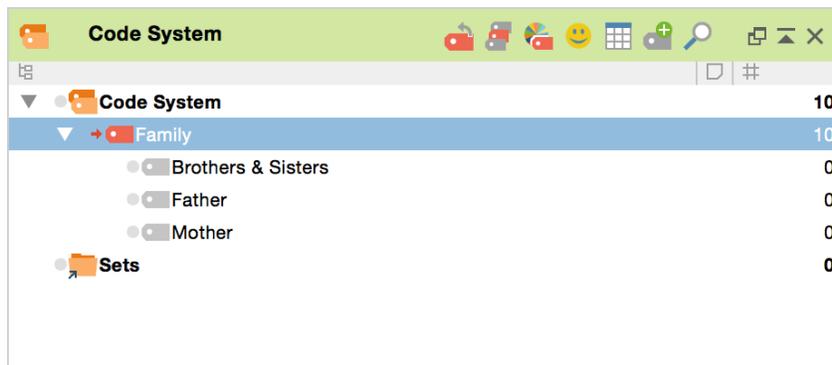
which an interviewee talks about his family, to this code. Then imagine that it becomes necessary to differentiate between “Mother,” “Father,” and “Brothers&Sisters.”

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.



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.”

9.27 Transferring the “Code System” to another Project

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 (MAXQDA format)**.
- or, select **Codes > Export Code System (MAXQDA format)** 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**.

9.28 Importing Codes and Code Memos from an Excel Table

MAXQDA can create a code system from the rows in an Excel spreadsheet. The reading of a code system from a table is useful when you want to define multiple codes in advance.



The first row of the table must include the keywords "Code" and "Memo". Each additional row corresponds to a new code and associated Memo. In the "Code" column, you can define subcodes using a backslash "\".

Tip: To insert a backslash on a Mac, press alt+⌘+7.

Example

Code	Memo
Codename 1	Here is a text, e.g. with the code definition
Codename 1\Subcode 1.1	Here is a text with the code definition
Codename 2\Subcode 2.1\Subcode 2.1.1	Here is a text with the code definition

When importing a table, MAXQDA proceeds as follows:

1. The defined codes are created (if they do not already exist), whereby "Subcode 1.1" is incorporated as a subcode of "Codename 1" and "Subcode 2.1" and "Subcode 2.1.1" are incorporated as subcodes of "Codename 2".
2. For each code, the corresponding text is assigned as a code memo and appears in the second column. Existing code memos are retained.
3. Code and subcode names will be shortened to 63 characters if necessary.

9.29 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.

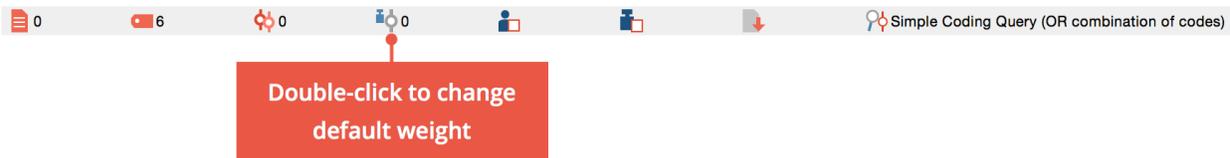
MAXQDA allows you to indicate how important or appropriate a segment is for the code it is coded with by giving it a weight score between 0 and 100. This weight score could be described as a "fuzzy variable," because it is not meant to give an exact numerical worth for the segment. Rather, it is intended 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.

When you use MAXQDA for the first time, the default weight will be set to 0. This can be changed in two places in the program:

- In the main menu under **Project > Preferences** (Windows) or **MAXQDA > Preferences** (Mac)

- In the status bar at the bottom of the screen, by clicking on the **Default weight** icon. A dialog window will appear where you can set a new default weight value. The current value is always visible in the status bar.



Changing the default weight in the status bar

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



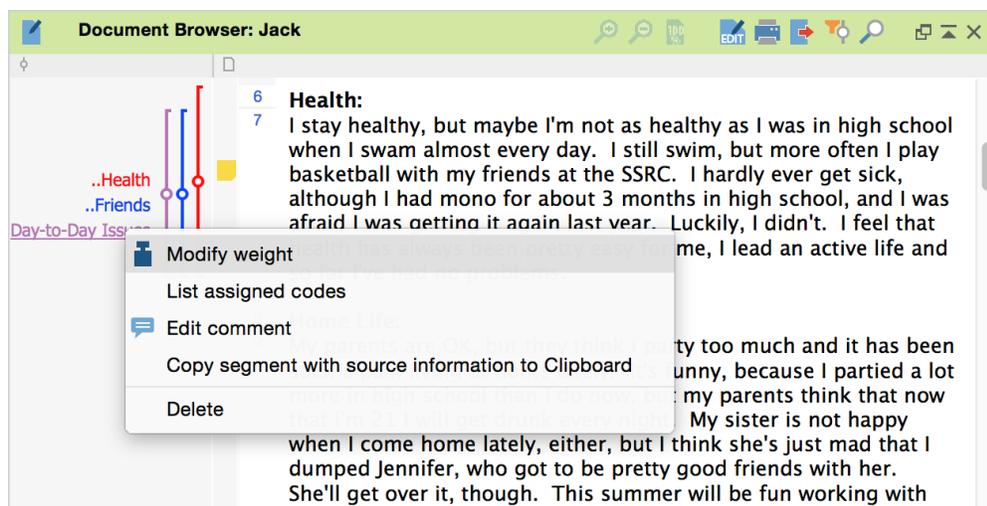
Weight score

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” Window

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

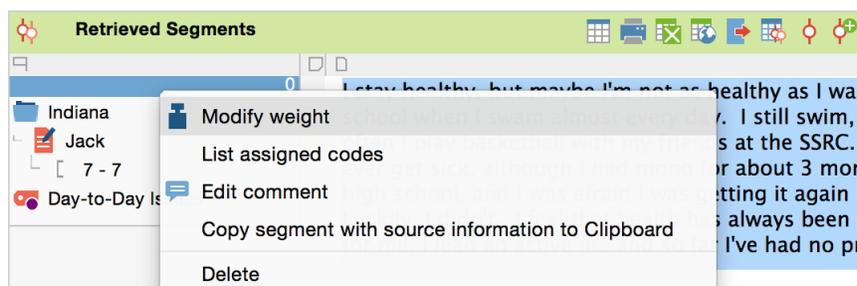
How the weight scores are used is completely up to you. You could choose to have a system where a weight score of 1 is the highest or where 100 is the highest.



Changing the weight score in the “Document Browser”

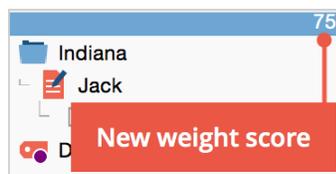
Assigning Weight Scores in the “Retrieved Segments” Window

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 info box with the blue header 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.

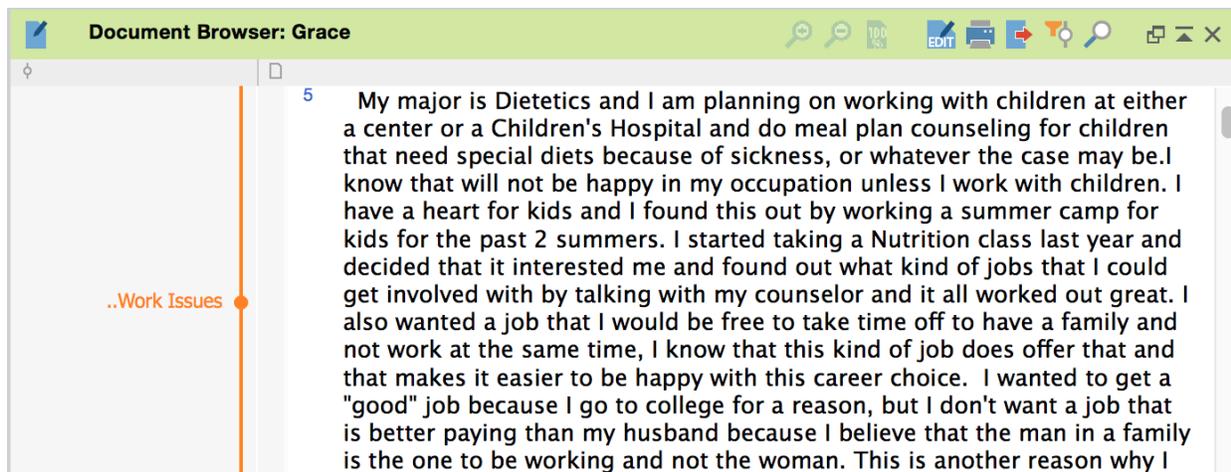
9.30 Creating Comments for Coded Segments

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:

- In the “Document Browser”: Double-click on a coding stripe or on a code name.
- In the “Retrieved Segments” window: Double-click on the source data of a coded segment
- In the “Overview of coded segments” or the table view of “Retrieved Segments”: Double-click in the “Comment” column to add a comment directly in the table.

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 circle is white in color, independent of the color of the code symbol. When a comment is attached, the inner circle 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

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.

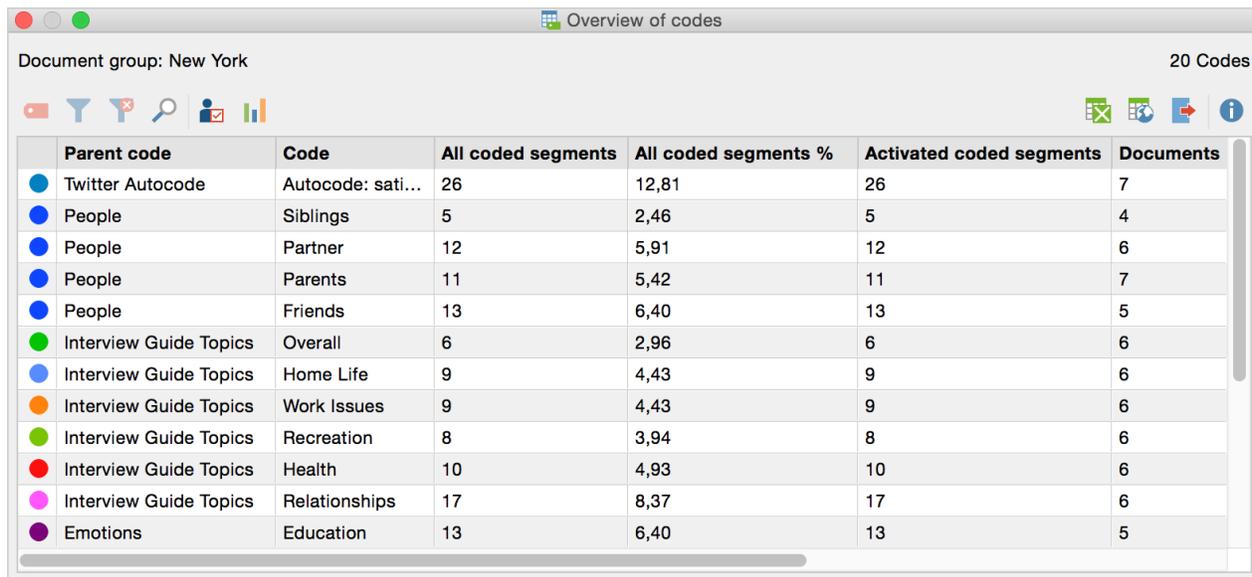
9.31 Overview of Codes

It might be of interest to take a look at how many times each code was assigned to individual, multiple, or all documents. This function is called the **Overview of codes** and can be found in several places in the program:

- In the Codes drop-down menu,
- In the context menu at the root of the “Document System”,
- In the context menu of a Document Group or Document Set, or
- In the context menu of an individual document.

A table view of all of the codes that occur in the relevant documents will appear. The table may contain more or fewer lines depending on the place in the program from which it was called up. In the title of the overview you can see which documents the overview applies to and to how many (different) codes in the document a segment is assigned.

Note: When the “Overview of Codes” is called up from the main menu “Codes”, it contains also codes to which no coded segment is assigned. Otherwise, only codes to which at least one coded segment is assigned will be displayed.



Document group: New York 20 Codes

Parent code	Code	All coded segments	All coded segments %	Activated coded segments	Documents
Twitter Autocode	Autocode: sati...	26	12,81	26	7
People	Siblings	5	2,46	5	4
People	Partner	12	5,91	12	6
People	Parents	11	5,42	11	7
People	Friends	13	6,40	13	5
Interview Guide Topics	Overall	6	2,96	6	6
Interview Guide Topics	Home Life	9	4,43	9	6
Interview Guide Topics	Work Issues	9	4,43	9	6
Interview Guide Topics	Recreation	8	3,94	8	6
Interview Guide Topics	Health	10	4,93	10	6
Interview Guide Topics	Relationships	17	8,37	17	6
Emotions	Education	13	6,40	13	5

Overview of codes for all documents (see top left) with 33 codes (see top right)

The other columns consist of:

- **Code** – the name of the code that appears in the “Code System”
- **Parent code** – Here the parent code is displayed for the easier assignment of codes. If the “Parent code” column is empty, the code in this row belongs to the top level of the code system.
- **Coded segments of all documents** – The number of segments in the analyzed documents that have been coded with a particular code or subcode.

- **Coded segments of activated documents** – Takes only activated documents into account. If this column displays all zeros, then presumably because no documents are selected. Once you can activate documents, you can directly observe how the values in this column change.
- **% Coded segments of all documents** – The share of segments that have been coded with the particular code or subcode, in relation to the total number of coded segments in column "All coded segments". The sum of the column is 100%.
- **% Coded segments of activated documents** – As in the "All coded segments %" column, but takes only activated documents into account.
- **Documents** – Number of documents in which the code or subcode appears
- **Code alias** – Alternative name for a code with up to 255 characters, that e.g. may be exported in the Smart Publisher report instead of the code name itself.

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.

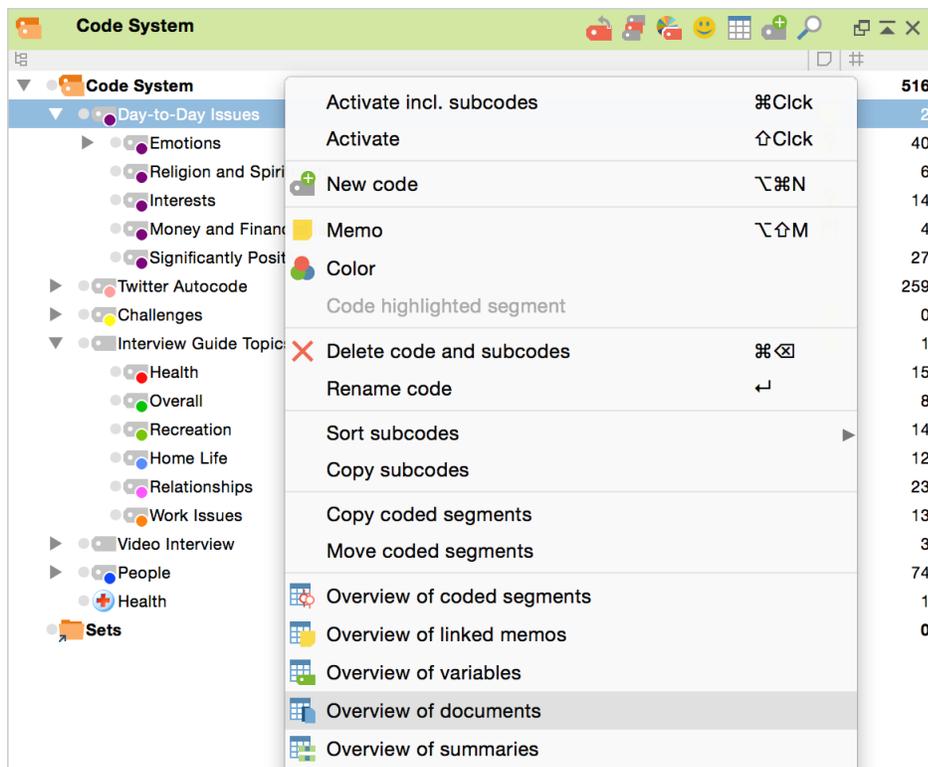
A toolbar is displayed above the "Overview of codes" from which the following special functions can be accessed:

 **Aggregate on 1st level** – Only the codes at the top level of the code system will be displayed. Here, the code frequencies of the subcodes are added, as well as the number of documents in which the code occurs.

 **Statistic** – Displays the values of the columns "All coded segments" and "Activated coded segments" as a frequency table or diagram.

9.32 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. It makes no difference whether the code has collapsed subcodes or not – the "Overview of documents" takes into account only the code in question.



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.

Overview of documents

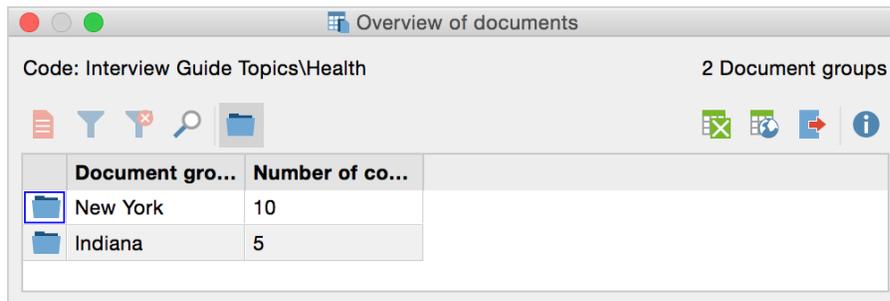
Code: Interview Guide Topics\Health 9 Documents

	Document group	Document name	Creation date	Author	Number of coded segments
☰	New York	Joanna	27/12/2012 11:36	Angela	1
☰	New York	Jon	27/12/2012 11:37	Angela	2
☰	New York	Kim	27/12/2012 11:57	Angela	1
☰	New York	Mary	27/12/2012 15:20	Angela	1
☰	New York	George	27/12/2012 15:20	Angela	1
☰	New York	Vincent	27/12/2012 15:20	Angela	4
☰	Indiana	Jack	27/12/2012 15:31	Angela	1
☰	Indiana	Kelly	27/12/2012 15:03	Angela	1
☰	Indiana	Grace	28/12/2012 19:22	Angela	3

“Overview of documents” for a code

In addition to the usual symbols above the overview, which include the functions for filtering rows and for export, the **Aggregate to document groups**  function is available. This function restricts the display to include only the document in which the selected code appears.

Taking the example 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 code path of "Code: Interview Guide Topics\Health" and "2 Document groups". Below the title bar is a toolbar with icons for document, filter, search, and folder. The main content area contains a table with the following data:

	Document gro...	Number of co...
	New York	10
	Indiana	5

Aggregating to document groups



10 Creative Coding: Arranging Codes in MAXMaps

10.1 The Idea behind Creative Coding

During open coding, researchers may create many codes, which, in hindsight, vary greatly in their scope and level of abstraction. Creative Coding effectively supports the creative process in which these codes are generated, sorted, and organized, and in which a hierarchical code structure is created based on the relationships between codes. The function provides a large working surface on which you can move codes and form meaningful groups. You can place codes that belong together next to one another, insert parent codes, rename codes and adjust their color, and create a logical structure. As a rule, this results after a long period of open coding and working with the codes.

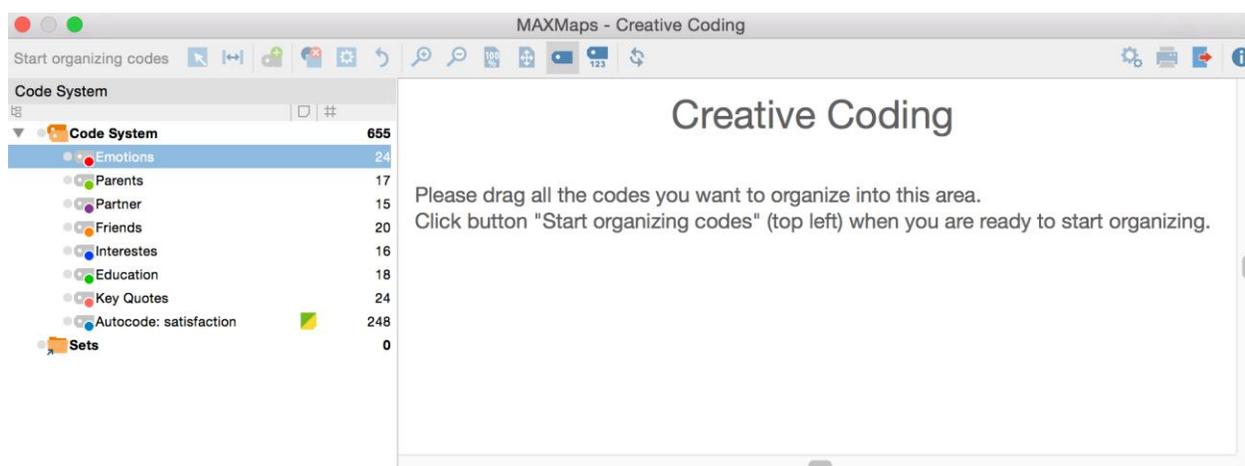
The functionality of Creative Coding is fully integrated in MAXMaps and is carried out in three steps: First, drag the codes you wish to work with from the Code System onto the work surface of MAX-Maps.

Next, group and organize the codes, create parent and subcodes, create new codes if necessary, and adjust the color of the codes as desired.

Finally, transfer the changed to the existing Code System.

10.2 Starting Creative Coding and Selecting Codes

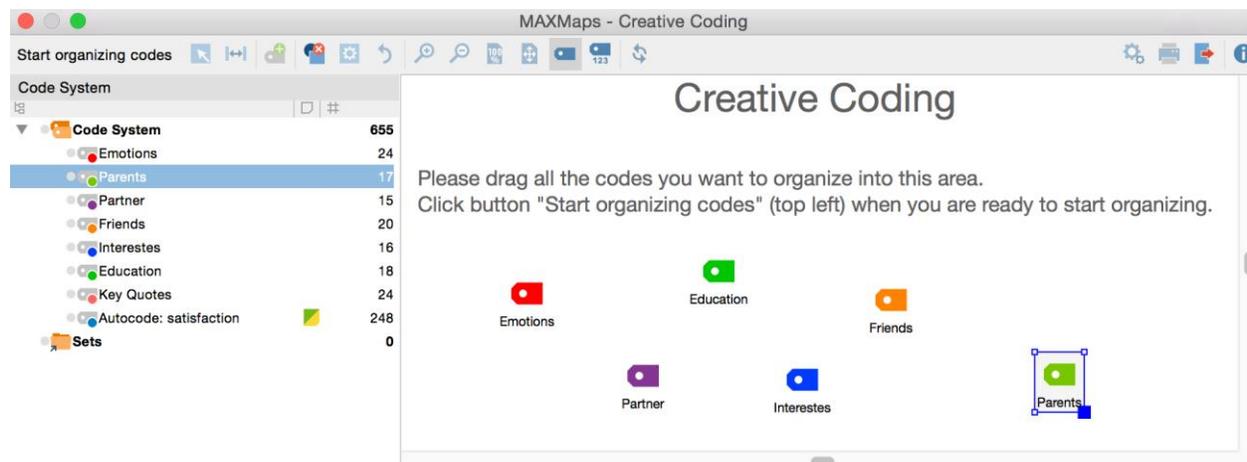
To start Creative Coding, select **Codes > Creative Coding** from the main menu, upon which MAX-Maps will open in Creative Coding mode and the following display will appear:



Selecting Codes for Creative Coding

Note: In Creative Coding only those top level codes will be displayed, that have a maximum of two subcode levels. All top level codes with more than two subcode levels are not available.

Now, single codes can be dragged from the code tree into the white work surface on the right with the mouse. If you select a code with subcodes, MAXQDA will insert the subcodes automatically on the work surface.



Selected codes for Creative Coding

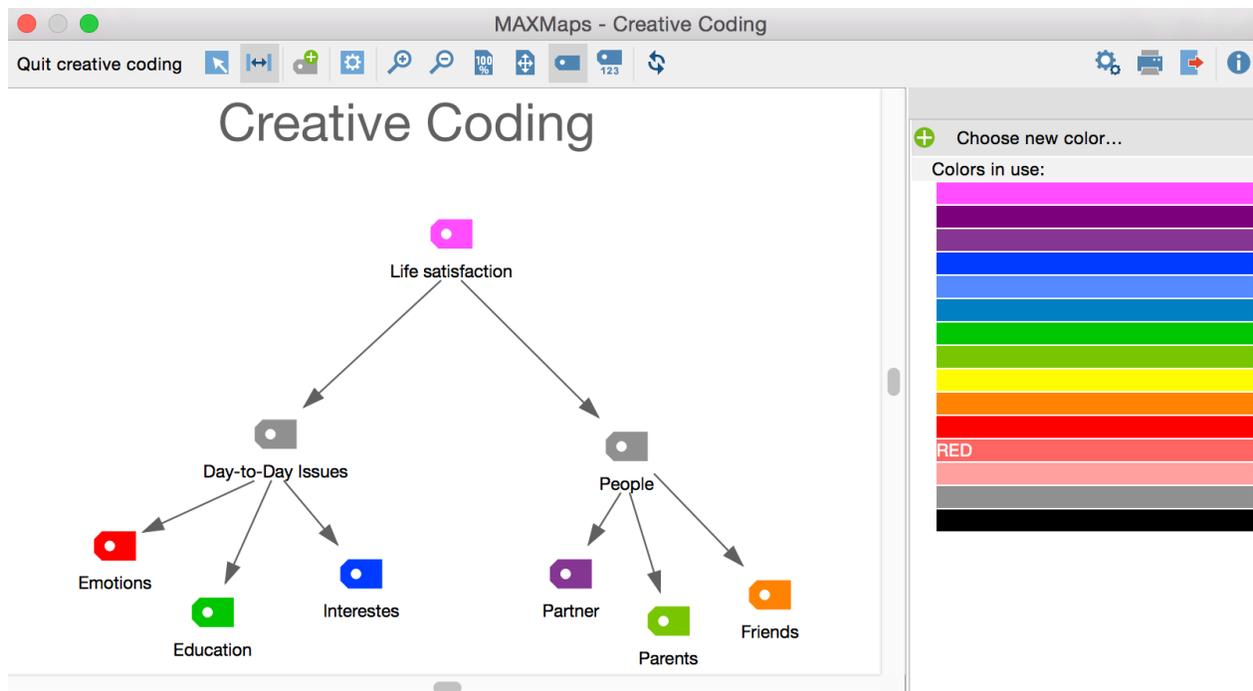
To remove a code from the work surface, right-click the code and select **Remove from map** .

After completing your selection, click the Start organizing codes button at the top left of the screen.

Note: While MAXQDA is in “Creative Coding” mode, the MAXQDA application is blocked and no further changes can be made to the open project until Creative Coding is finished.

10.3 Organizing Codes

Once you click on the **Start organizing codes** button, the structuring and organization of the codes begins. Here the display will change: The code tree on the left will close and a color panel will appear on the right that displays all of the colors currently in use.



Organizing Codes on the MAXMaps work surface

All codes can be freely arranged on the work surface with the mouse, as long as you are in **Select** mode . You can move multiple codes at once by drawing a border around them with the mouse and then positioning them as desired.

The following options are available in Creative Coding:

- Creating relationships between codes
- Creating new codes
- Merging Codes
- Modifying code colors
- Undoing changes
- Displaying coded segments and code frequency of a code

Creating Relationships between Codes

As displayed in the image above, relationships between codes are shown with an arrow: When an arrow is pointing at a code, it means that this code is a subcode of the other.

To make Code A a subcode of Code B, proceed as follows:

1. Go into "Link" mode by clicking the **Link**  symbol.
2. Click on the desired top-level code and draw an arrow to the desired subcode.

To avoid the occurrence of circular references, existing assignments of the subcode to other codes are repealed.

To delete an arrow, right-click on it and select **Remove from map**.

Creating new codes

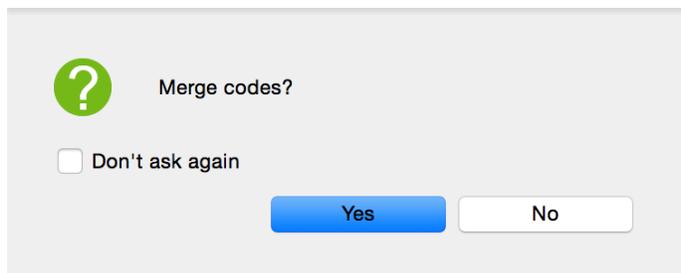
Users often wish to group multiple codes under an abstract concept. For this purpose, you can always create new codes by clicking **Insert new code** . MAXQDA will subsequently insert the new code in the top left of the work surface.

As per usual, you can rename the code by double-clicking on its label.

Merging Codes

To merge two codes, proceed as follows:

1. First, go into Select mode by clicking on the **Select**  symbol
2. Drag the first code onto the second code so that the “Merge codes” tooltip appears. When you release the mouse button, the following confirmation message will appear:



Confirmation message for merging of codes

After clicking **Yes**, the moved code will disappear from the map and all its coded segments will be assigned to the target code upon exiting Creative Coding.

If you choose **Don't ask again**, the inquiry for the merging of codes will no longer appear in the current Creative Coding session.

Changing Code Color and Appearance

The color and appearance of codes can be modified as follows:

1. First, go into Select mode by clicking on the Select  symbol
2. Click the code whose color you wish to change. To select multiple codes at once, draw a border around the codes with the mouse or click on each code while holding the Ctrl key (Windows) or cmd key (Mac).
3. Click on a color in the color panel on the right to select a color already in use. Alternatively, you can assign a new color from the color panel.

If you change the color of a parent code, the color of the subcodes will also be changed following confirmation. If you create a new color, MAXQDA will apply this new color to selected codes automatically.

To modify the appearance of an individual code, double-click on the code. A dialog window will appear in which you can define the font size, symbol size, etc.



Undoing changes

Recent actions can be undone step-by-step by clicking the **Undo changes**  symbol.

Displaying Code Frequency and Coded Segments of a Code

In order to organize codes, it can be helpful to visualize the number of each of the associated coded segments. By clicking the **Display code frequency**  symbol, the code frequency will be automatically displayed in brackets after the code name.

When you right-click on a code, a context menu will appear from which you can access the following options:

- **Memo** – Opens the associated code memo.
- **Overview of coded segments** – Opens the “Overview of coded segments” where you can inspect the coded segments of the code.
- **Overview of linked memos** – Opens the “Overview of memos” where you can browse all memos of the selected code.

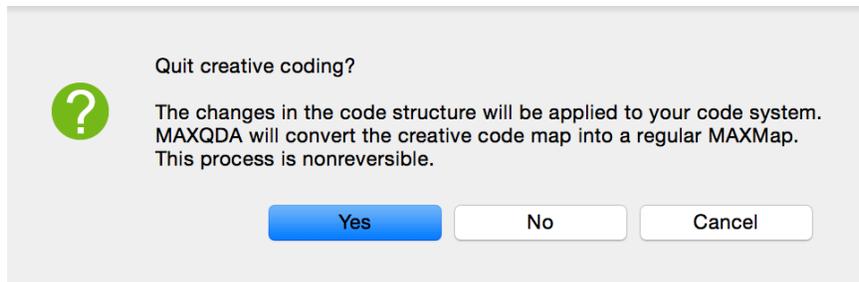
Note: Any changes you have made in Creative Coding mode have not yet been transferred to the MAXQDA Code System. The changes will be applied only once you quit Creative Coding.

Save Current State of the Work as regular MAXMap

Working on the code structure with Creative Coding may take some time and may include different stages of development. While you start with arranging codes in groups first, you possibly are merging codes and creating new higher level codes later on. To track these different stages MAXQDA allows you to save the current status of your work as a regular MAXMap: just click on the icon  **Save copy of current Creative Coding map as standard MAXMap**. The map will be available after quitting Creative Coding when you start **Visual Tools > MAXMaps** from the main menu.

10.4 Quitting Creative Coding and Transferring Changes to the Code System

Changes made in Creative Coding mode will be applied only once you quit Creative Coding. After completing the organization of your codes, you must quit Creative Coding in order for the changes to be applied to the Code System. To do so, click the **Quit Creative Coding** button in the top left of the window. The following message will appear:



Quit Creative Coding

The following options are available:

Yes – The code structure will be transferred to the existing Code System

- All codes from the Creative Coding work surface that do not have a parent code will be sorted alphabetically and inserted at the top of the Code System. This applies also to newly created codes.
- Subcodes will be inserted according to their hierarchical position.
- Any color changes to codes will be applied.
- Merged codes will be merged, i.e. the origin code will be deleted and its coded segments will be moved to the target code. If the deleted code contained a memo it will be converted to a free memo, that can be accessed in the „Overview of memos“.
- The Creative Coding map will be converted into a normal MAXMap.

No – Creative Coding will be closed without transferring the changes to the Code System. This means all changes will be lost!

Cancel – Returns to Creative Coding.



11 Intercoder Agreement

11.1 The Problem of Intercoder Agreement in Qualitative Research

When assigning codes to qualitative data, 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 MAXQDA “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.

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.

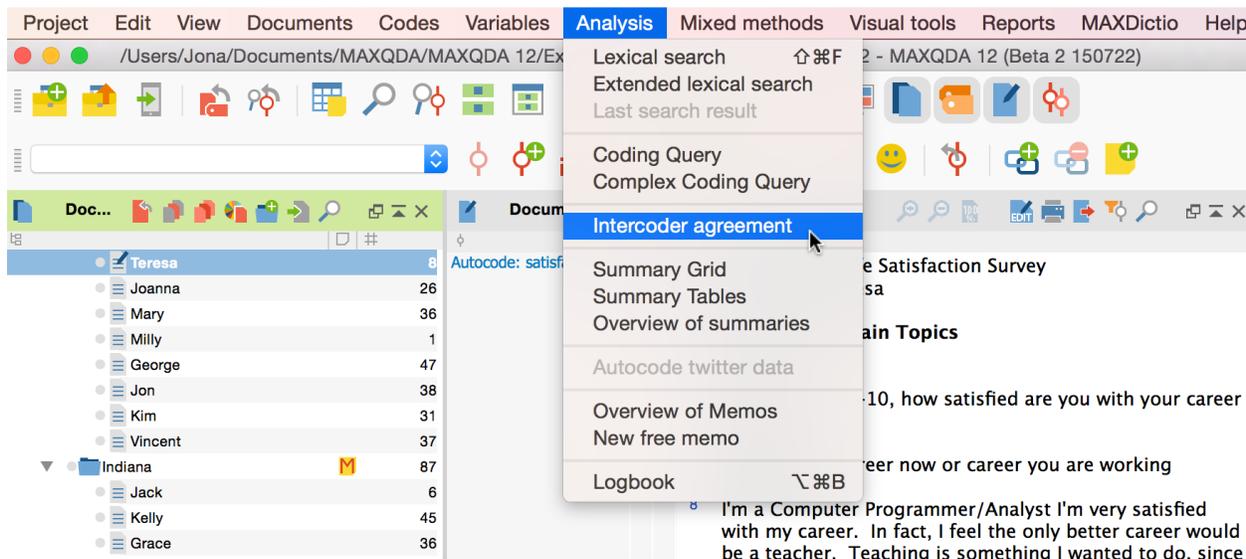
The Intercoder Agreement tool is set up to compare and contrast a single document coded by two independent coders, highlighting the areas where the two researchers' coded segments align and do not align. It is then possible for these two coders (or a larger research team) to decide which coding variation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

11.2 The Agreement Testing Concept in MAXQDA

The Intercoder Agreement function in MAXQDA works as follows:

1. Two people code the identical document 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. This can for example be accomplished using the function **Project > Merge projects**, as long as both coders have been working with the same documents in each project.

You can now start the **Intercoder Agreement** function by selecting it from the **Analysis** drop-down menu. The Intercoder Agreement will show where the assignment of codes by the two coders match and do not match.



Starting the Intercooder 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" list and the second coder's document from the "Document 2" list.
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

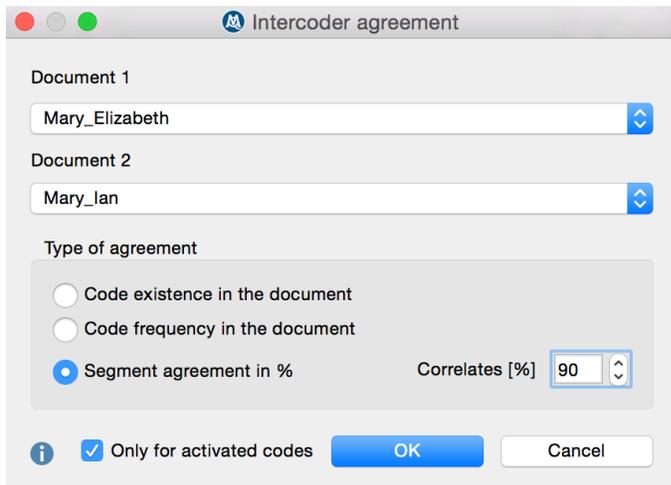
The criterion in this variation is the presence of each code in the document, meaning whether or not each code is found at least once in the document. This variation is most appropriate when the document is short, and there are many codes in the "Code System."

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 Intercooder 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.

Code System	George	Joanna	SUM
Day-to-Day Issues			0
Emotions	■	■	2
Education		■	1
Interests	■		1
Money and Financial Issues	■		1
Religion and Spirituality	■		1
Significantly Positive	■	■	2
SUM	6	3	9

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 squares** selects the corresponding document in the “Document Browser” and the corresponding code in the “Code System.” Double-clicking on the **squares** activates the document and the code, and lists the segment in the “Retrieved segments” window.

At the top of the results window, you can see the percentage of agreement. In this case, there is a correlation of 57.14%. When calculating the percentage of agreement, the non-existence of a code in both documents is also considered a match.

Note: If you have selected the option **Only for activated codes** and have activated only the subcodes of certain codes, the parent codes will be included when calculating the percentage match and in the display of information.

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 Intercooder Agreement in percent for the first two variations as follows:

Percentage of Agreement

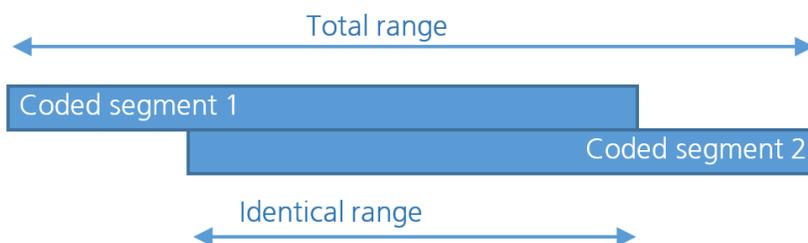
= # of agreements / (# of agreements + # of non-agreements)

= # of agreements / # of rows

Results for Variation 3

This is the most complicated variation, since intercooder 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. As a match criterion, the percentage of the overlapping portion of the coded segments is defined. The percentage of agreement that results represents the relative share of the matching area in relation to the total area of two coded segments, which is illustrated schematically in the following diagram:



The percentage threshold can be set in the dialog window. The default value is 90%.

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



The Code-Specific Results Table

	Code	Correlates	Doesn't correl...	Total	Percent
◆	Key Quotes	2	2	4	50,00
◆	People	2	0	2	100,00
◆	People\Friends	0	4	4	0,00
◆	People\Parents	0	2	2	0,00
◆	People\Partner	0	3	3	0,00
◆	People\Siblings	0	1	1	0,00
◆	<Total>	4	12	16	25,00

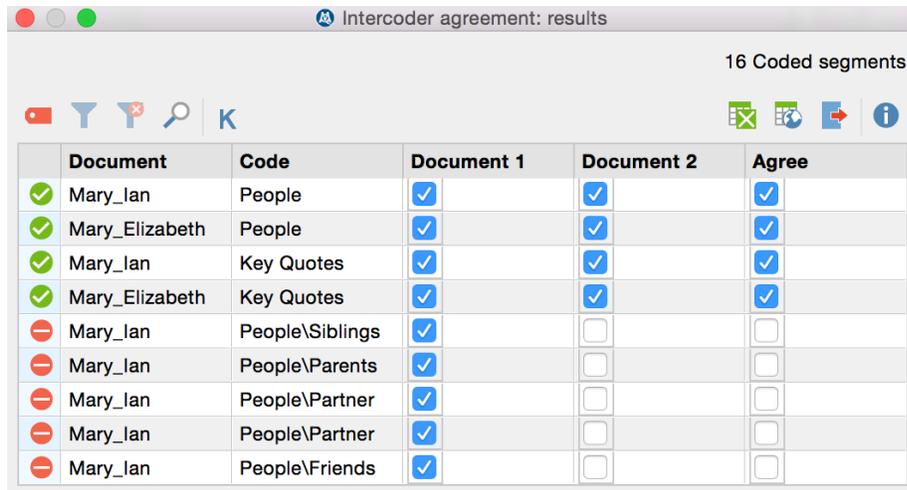
The Intercoder Reliability results for the individual codes

This table is made up of one row for each code that was included in the test. Codes that do not appear in either of the documents will be ignored. 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.

The 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 icon 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 Document Browser as well, showing the place where the correlating (or non-correlating) coded segment is. You can now very easily switch back and forth between the documents to analyze which of the coded segment variations is the most accurate.



Intercooder agreement: results

16 Coded segments

	Document	Code	Document 1	Document 2	Agree
✓	Mary_Ian	People	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
✓	Mary_Elizabeth	People	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
✓	Mary_Ian	Key Quotes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
✓	Mary_Elizabeth	Key Quotes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
✗	Mary_Ian	People\Siblings	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✗	Mary_Ian	People\Parents	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✗	Mary_Ian	People\Partner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✗	Mary_Ian	People\Partner	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
✗	Mary_Ian	People\Friends	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Results table for all coded segments

Coefficient Kappa for exact segment matches

In qualitative analysis, the analysis of the Intercooder agreement serves primarily to improve coding instructions and individual codes. Nevertheless, it is also often desirable to calculate the percentage of agreement, particularly in view of the research report to be generated later. This percentage of agreement can be viewed in the code-specific results table above, in which individual codes as well as the ensemble of all codes are taken into account.

Researchers often express the desire to indicate not only percentage compliance rates in their research reports, but also to include chance-corrected coefficients. The basic idea of such a coefficient is to reduce the percentage of agreement to that which would be obtained in a random assignment of codes to segments.

In MAXQDA, the commonly used coefficient “Kappa” can be used for this purpose: In the results table, click on the **K Kappa** symbol to begin the calculation for the analysis currently underway. MAXQDA will display the following results table:



K Kappa

		Document 1		
		1	0	
Document 2	1	a = 4	b = 34	38
	0	c = 4	0	4
		8	34	42

P(observed) = $P_o = a / (a + b + c) = 0.10$

P(chance) = $P_c = 1 / \text{number of codes} = 1 / 17 = 0.06$

Kappa = $(P_o - P_c) / (1 - P_c) = 0.04$

i
Copy

Intercoder coefficient Kappa

The number of codes that match is displayed in the upper left corner of the four-field table. In the upper right corner and the lower left corner you will find the non-matches, meaning one code, but not the other, has been assigned in a document. In MAXQDA the Intercoder agreement at the segment level takes into account only the segments to which at least one code has been assigned; therefore the cell on the lower right is, by definition, equal to zero (as document sections will be included in the analysis only if they are coded by both coders).

P(observed) corresponds to the simple percentage of agreement, as it was displayed in the <Total > line of the code-specific results table.

For the calculation of P(chance), or chance of agreement, MAXQDA employs a proposal made by Brennan and Prediger (1981), who dealt extensively with optimal uses of Cohen's Kappa and its problems with unequal edge sum distributions. In this calculation, the random match is determined by the number of different categories that have been used by both coders. This corresponds to the number of codes in the code-specific results table.

For the calculation of coefficients such as Kappa, segments must normally be defined in advance, and are provided with predetermined codes. In qualitative research, however, a common approach is that not to define segments *a priori*, but rather to assign the task to both coders of identifying all document points that they view as relevant, and to assign one or more appropriate codes. In this case, the probability that two coders code the same section with the same code would be lower, and hence Kappa would be greater. One could also argue that the probability of randomly occurring coding matches in a text with multiple pages and multiple codes is so insignificant that Kappa corresponds to the simple percentage agreement. In any case, the calculation should be carefully considered.

12 Memos: Managing Your Ideas

12.1 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 the qualitative data: documents are analyzed and coded, but they are usually not changed radically once the analysis has begun – most typographical errors have been eliminated.

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
- audio and video files
- 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 any concrete connection to a part of the data.

12.2 Memos Attached to Document Segments

MAXQDA offers several different ways to create a new memo in the “Document Browser”:

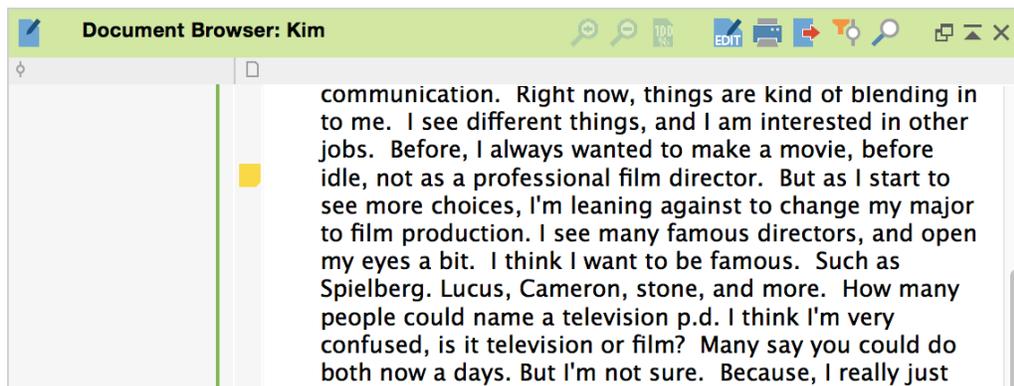
Creating a Memo by double-clicking in the Memo column

Move the cursor to the memo column, located to the left of the open document, then double-click at the height you wish to attach the memo.



Creating a new memo by double clicking in the memo column

All memos in the document browser are associated with a position on the document. When you create a memo by double-clicking in the memo column, it will automatically be attached to the document body at the level of the click position in the left margin. In MAXQDA, memos can be easily recognized by their yellow icon:



Yellow memo icon in the memo column

Creating Memos using the Context Menu or Quick Button

Other ways to add a new memo are to select the position in the document, right-click with the mouse and select **New memo** from the context menu, or the Quick button  from the coding toolbar. MAXQDA will insert a memo in the memo column at the selected position in the document.

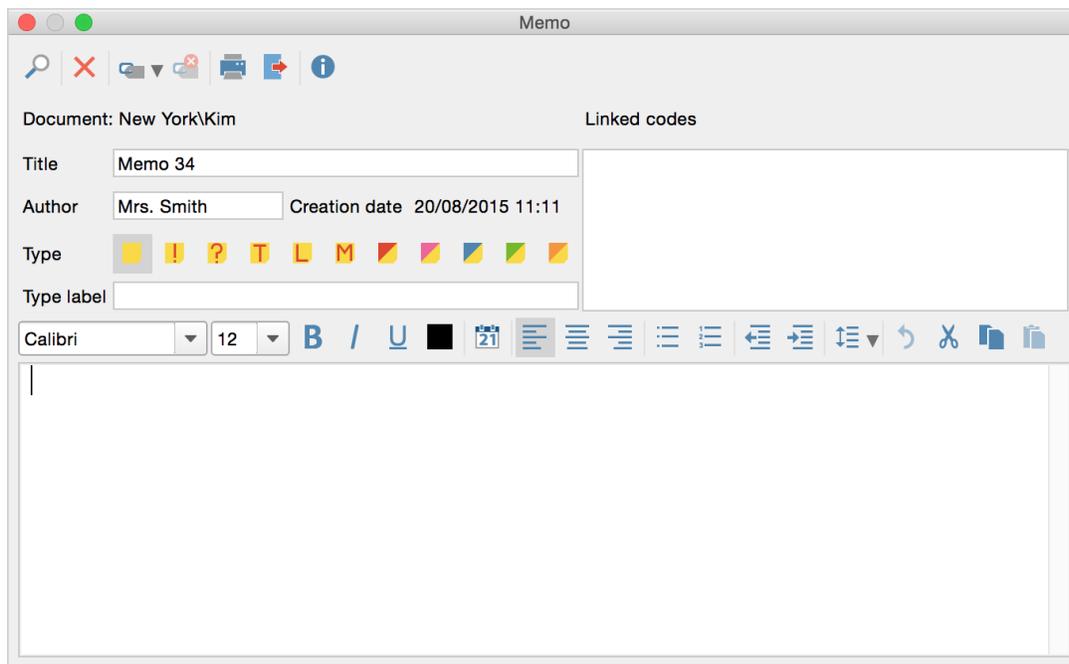
Tip: In the "Document Browser," memos can be moved using the mouse – of course, only within the memo column. MAXQDA will display the original position of the memo while it is being moved. The memo's original position within the document will be cancelled when the move is complete.

The number of memos per document and per position within the document is not subject to practical limitations, which means you can create several memos at the same level in the Document Browser. MAXQDA will automatically place the memos side-by-side.

Note: If you delete text to which a memo is attached while in Edit mode, the memo will be retained and automatically assigned to the preceding text. This operation is intended to prevent valuable personal notes from being deleted unintentionally.

Recording Information in a Memo

Immediately upon creating a new memo, the memo window will appear:



The memo window

You can now enter a title for the memo, so that you can easily find it later in the “Overview of memos”. Select a meaningful title for simple identification.

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

The memo text can be entered in the bottom field of the window.

12.3 Viewing and Editing Memos

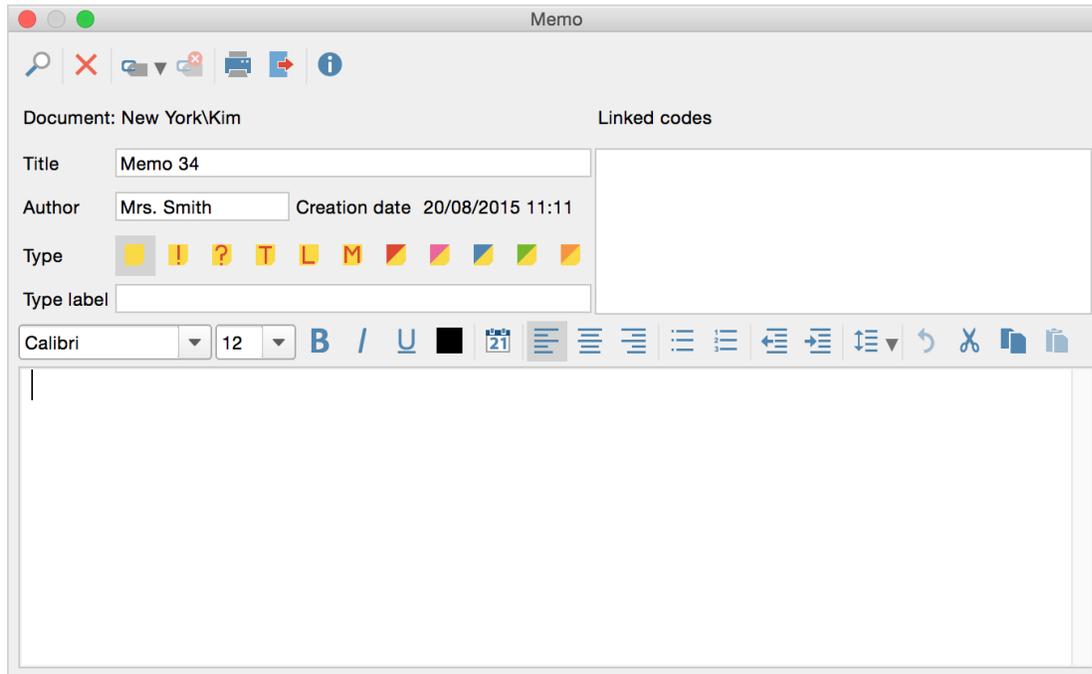
Opening and editing memos

When you move the mouse over a memo symbol in MAXQDA, a tooltip will appear with the title, author and creation date of the memo, as well as the label assigned to the memo type and the beginning of the memo text.

To view and edit a memo, double-click with the left mouse button on the memo icon. The following memo window will appear:.



The Memo Window



The Memo Window

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.

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.

Tip: Since the meanings of the memo visualizations are assigned individually, you can indicate the function or significance of each memo visualization in the current research project in the **Type Label** text box. Please note that it is possible to edit this field in any open memo; any memos of the same type will be amended accordingly.

The memo itself is entered in the large text window. You can include the creation or modification date in the body of the memo by clicking the symbol.

Using the 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 clipboard may be used in two ways:

- Text can be imported into the text field of a MAXQDA memo. For example, a Word text file can be attached to a specific text passage as a memo and consequently managed by MAXQDA.
- 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.

Tip: 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.

The Toolbar in the Memo Window

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:

 **Display search toolbar** – Opens another toolbar that allows you to browse the open memo.

 **Delete Memo** – Deletes the memo after confirmation.

 **Link to code** – Assigns the memo a code from the Quick list of codes.

 **Remove link to code** – Removes selected codes from the “Linked Codes” window.

 **Print** – Prints the selected memo.

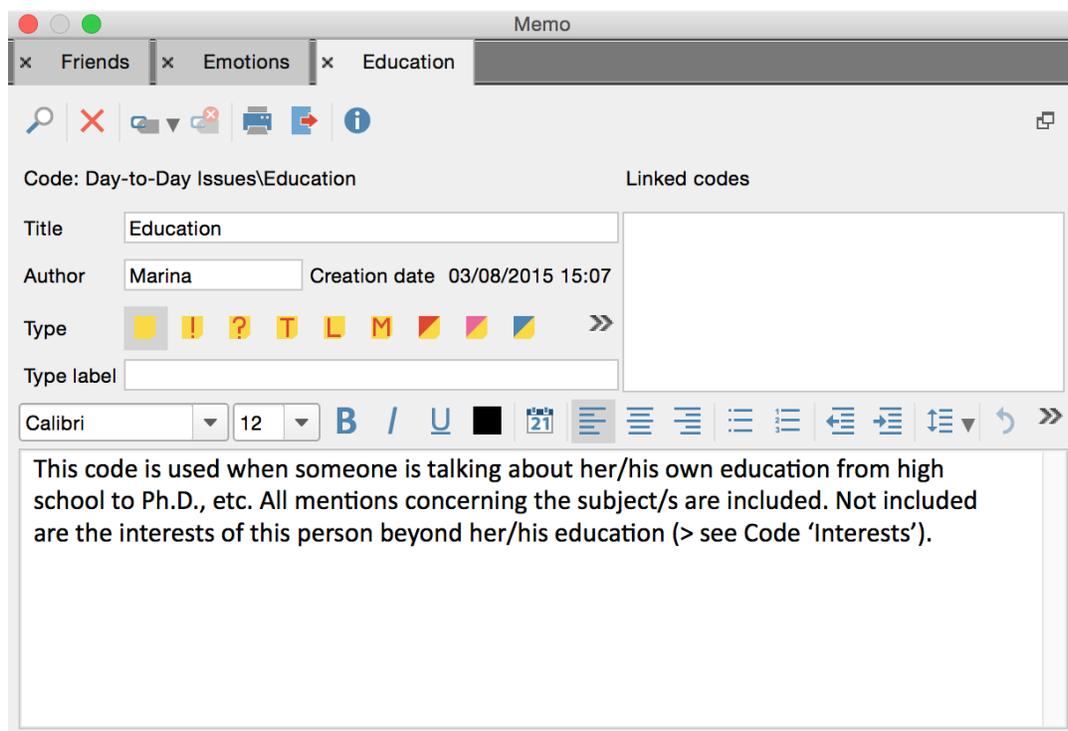
 **Export** – Exports the displayed memo as a text document in RTF format, which can be opened in, for example, Word.

Save Memo Content

MAXQDA saves all the information that was entered in the Memo window when you close it. In addition, the open memo window is saved automatically at regular intervals. You can adjust the default value of 5 minutes under **Project > Preferences (Windows)** or **MAXQDA12 > Preferences (Mac)**.

Open Multiple Memos as Tabs

Tip: You can pull individual tabs out of the Memo window with the mouse, so you can view multiple memos at the same time, each in their own Memo window. Alternatively, you can click **Dock window**  symbol, which will also bring up a new Memo window.



Multiple open Memos in Tab display

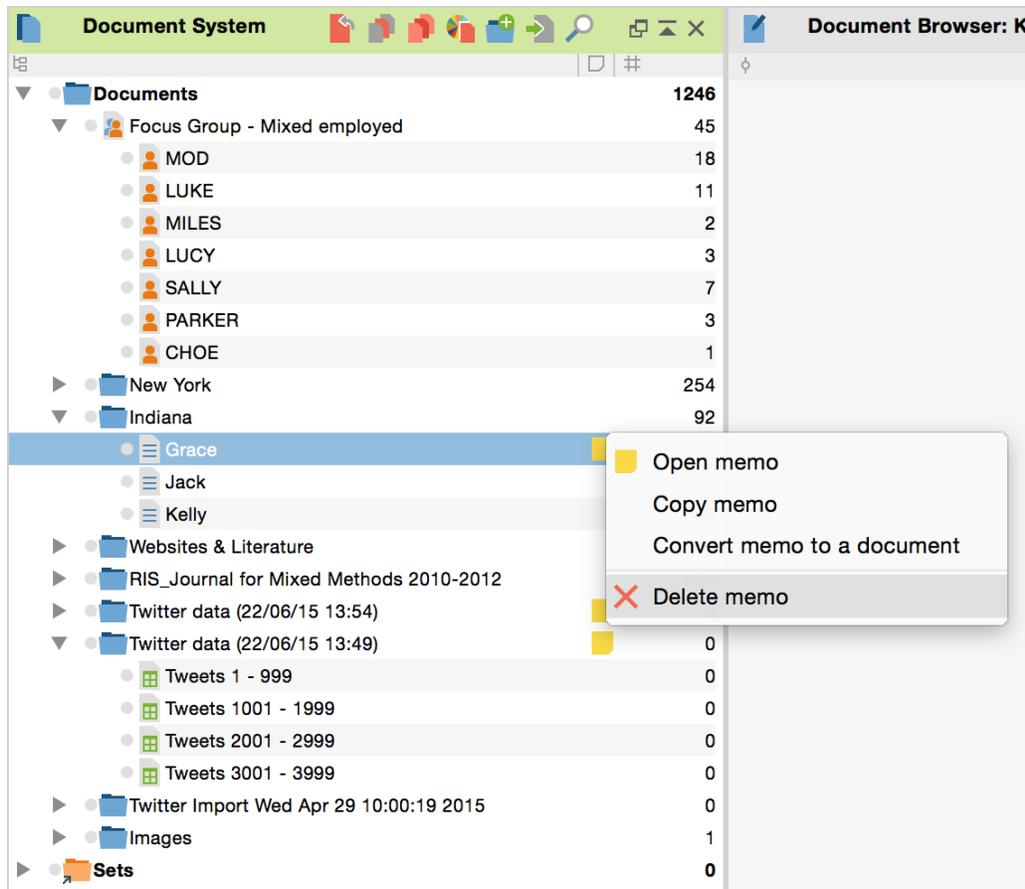
Copying Memos

You can duplicate a memo by right-clicking on it and selecting **Copy Memo**. Then, right-click again in a space where a memo can be inserted – such as in the memo column or in the Document or Code System – and select **Paste Memo**.

Deleting Memos

You can delete an entire memo by clicking the corresponding **Delete** button. MAXQDA will prompt you for confirmation before the memo is deleted.

Tip: You can delete a memo directly by right-clicking on the memo symbol and selecting **Delete memo**.



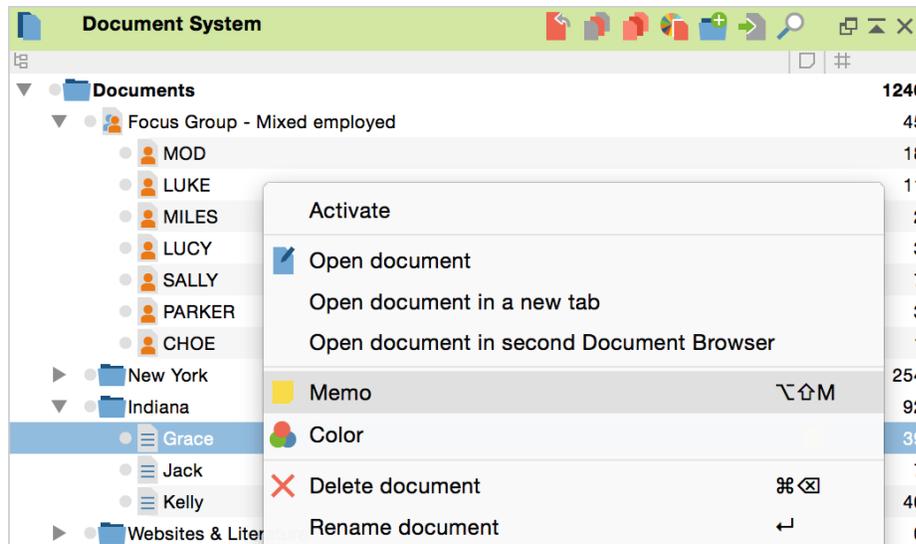
Delete a memo via the context menu

12.4 Creating Document Memos in the “Document System”

Memos can also be attached to all items in the “Document System”, including individual documents, document groups, document sets, or the entire project. However, only a single memo can be attached to an item, with the exception of within a document.

There are several options for creating a new memo in the “Document System:”

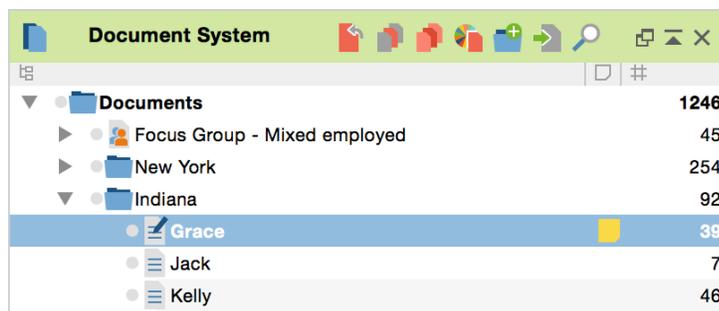
- Right-click on a level of the Document system and select the **Memo** option from the context menu.
- Alternatively, you can create a memo for the currently selected document or level using the keyboard shortcut **Alt+Shift+M**.
- The fastest way to create a new memo is to double-click in the memo column to the left of the code frequencies.



Creating a memo for a document from the context menu

The memo text field is exactly the same as that of a memo for a text passage, and the author and date will be entered automatically. The memo will automatically assume the document name as its title; this can be changed at any time.

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.



Visualization of a memo in the “Document System”

A memo attached to the top level of the project can be used to retain a description of the entire project. The memos of individual texts can be used to store immediately accessible summaries of these texts. You can 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 include the most important aspects of a memo in the first few lines so that they will be displayed immediately when you hover the mouse.

12.5 Creating Code Memos in the “Code System”

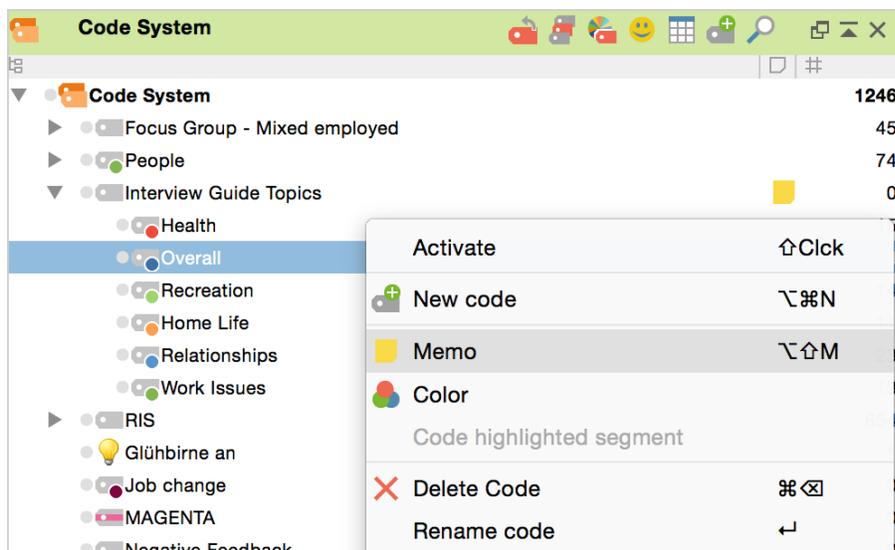
MAXQDA also allows you to attach memos to codes. These memos often contain category definitions and anchor examples.

There are several options for creating a new memo in the Code System:

- Right-click on a code and select **Memo** from the context menu.
- Alternatively, you can create a memo for the currently selected code using the keyboard shortcut **Alt+Shift+M**.
- The fastest way to create a new memo is to double-click in the memo column to the left of the code frequencies.

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, where you can customize the memo as per usual.



Creating a code memo

After closing the memo, you will see a yellow memo symbol next to the code in the “Code System”, making it easy to recognize that this code has a memo attached to it.

Tip: For code memos, you will often want to insert an anchor example or explanation of when the code should be used. To insert parts of an open text in a memo, simply highlight the desired text, then drag and drop it into the memo with the left mouse button.

As with other memo types, you can choose another one of the visualization options in the place of the default yellow memo icon. The selected icon will appear next to the code in the “Code System”.

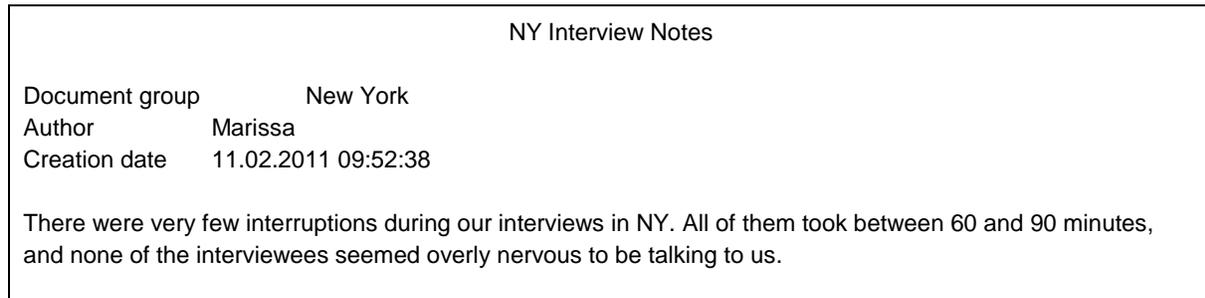
12.6 Printing and Exporting Individual Memos

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



Clicking the **Print** icon will open the print preview window, where you can define the header, margins, etc. The memo title is set as the heading, and the author and creation date/time are listed underneath it.

It is also possible to export the entire memo as in RTF format for a word processing program. Click on the **Export** icon  to export the memo. In this case, you must select a file name under which the memo will be saved.



An exported memo

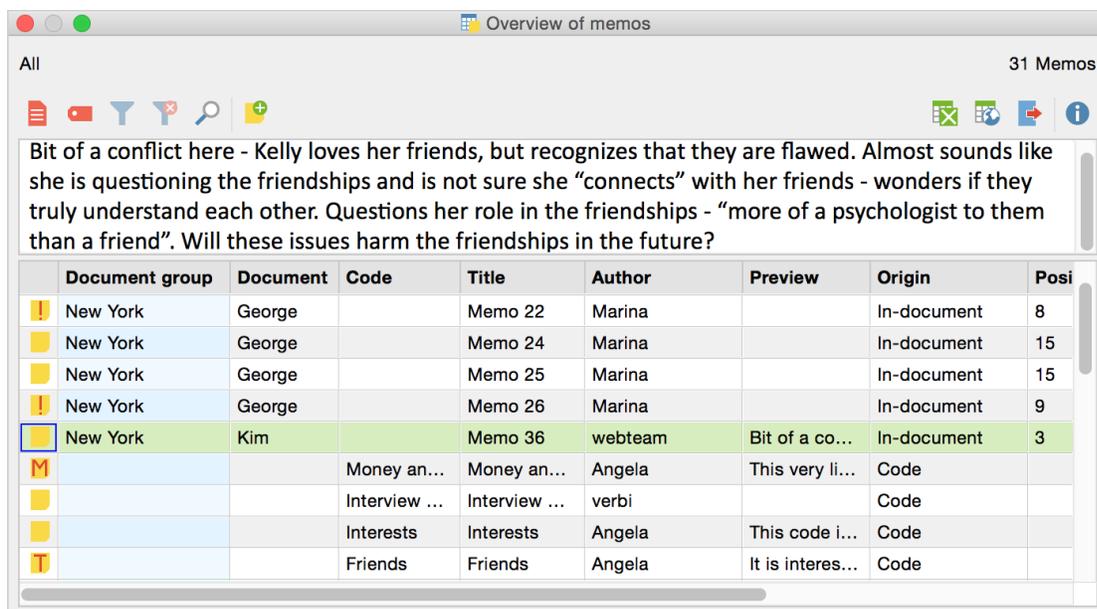
12.7 Managing Memos in the "Overview of memos"

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

In addition, contextual listings of memos in the "Document System" and "Code System" are available. If you select **Overview of memos** from the context menu of a document group, MAXQDA lists all of the memos assigned to the documents themselves. In the context menu for a code, there is an **Overview of linked memos option**, which provides a list of all of the memos assigned to the selected code.

However you open the "Overview of memos," a table will appear with a list of the requested memos. Each row represents one memo.

Tip: If you click on the row of a text memo, the text to which the memo is attached will be displayed in the "Document Browser", and will be positioned at exactly the point where the memo is located. Double-clicking on the row will open the memo for editing.



The "Overview of memos"

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 63 characters
- The origin of the memo (e.g. the document, document group, document segment, or code the memo is attached to).

The upper section of the window displays the memo text, so that various memos can be scrolled though without opening individual memo windows for each. Memos cannot be modified or deleted in the "Overview of memos". Instead, right-click on the line where the memo is listed and select **Delete Memo**.

Note: To modify a memo, double-click on the line where it is located. The usual memo window will open, and from here you can modify or add to the memo text.

Sort Overview of Memos and Customize View

As with all tables in MAXQDA, the table columns can be moved into a different order. Simply click the column header and hold the mouse button as you move the column into the desired position.

Table columns can be hidden by right-clicking the column header and selecting **Hide**. 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.



The table can be sorted in ascending or descending order, using any column as the sort criterion. To access this function, click the column header. For example, if you click on the “Document Group” column header, the table will be sorted in ascending order of document groups, beginning with A. If you click the column header again, the table will be sorted in descending order of document groups beginning with Z.

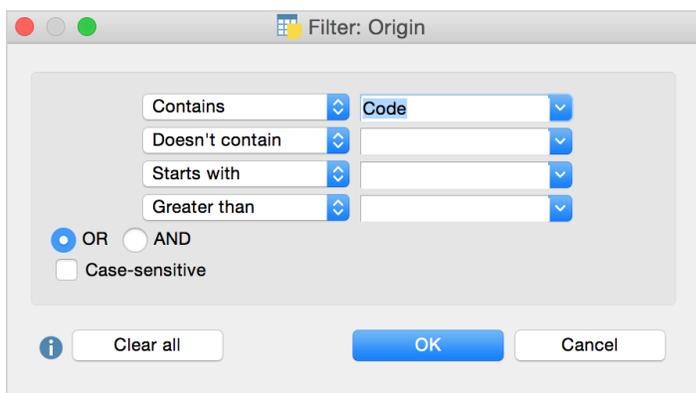
The same applies to all data fields: If you click on the “Creation date” column header, the memos will be sorted according to the dates they were created. If you click on the “Author” column header, all memos written by an author will appear in succession.

Filtering the “Overview of Memos”

As with all overviews in MAXQDA, the tabular Overview of Memos can be sorted according to diverse criteria. This is especially handy if you want to compile only the code memos of a project or user, or only the memos that were created after a certain date.

For example, to compile all of the code memos for a project, proceed as follows:

1. Open the “Overview of memos” with all memos. The fastest way to do so is to click on the  symbol in the standard toolbar.
2. Right-click on the “Origin” column heading and select **Filter**.
3. In the dialog box that appears, select “Contains” and enter “Code”:



Filtering the “Overview of Memos”

4. When you click OK, MAXQDA will list the code memos of the project only.

Document group	Document	Code	Title	Author	Creation date	Preview	Origin
		Autocode: satisfac...	satisfaction	Angela	09/01/2013 17...	Autocode for the word ...	Code
		Emotions	Emotions	Angela	09/01/2013 09...	This code is used when...	Code
		Friends	Friends	Angela	09/01/2013 17...	It is interesting to see ...	Code
		Money and Financi...	Money an...	Angela	09/01/2013 15...	This very likely will over...	Code
		Interests	Interests	Angela	09/01/2013 17...	This code is used when...	Code
		Interview Guide To...	Interview ...	verbi	12/06/2015 14...		Code
		Education	Education	Marina	03/08/2015 15...	This code is used when...	Code
		Religion and Spirit...	Religion a...	webteam	20/08/2015 12...		Code
		Significantly Positive	Significantl...	webteam	20/08/2015 12...		Code

Listing of all code memos in a project

Browsing the “Overview of memos”

It is also possible to search in the various columns. To search in a specific column, right-click on the column header and select Search. The instances where the search term appears are immediately highlighted, and the up and down arrows allow you to navigate between memos. To search multiple columns simultaneously, select the **Choose search columns** option. When you use the magnifying glass symbol  in the “Overview of Memos” toolbar, the search will automatically be carried out in all columns.

Note: When you search the “Preview” column, only the only the first 63 characters of the memo will be included in the search. If you want to search the entire memo text, select the option **Analysis > Lexical search**.

Creating a New Free Memo

In the “Overview of memos” toolbar you will find the New free memo icon . You can create a new free memo, which is not assigned to any particular document, code, or text by clicking on this icon. Alternatively, you can create a new free memo by selecting **Analysis > New free memo** from the main menu.

Free Memos are visible in the “Overview of memos” only when all memos from the project are included.

Jumping from the “Overview of memos” to a Memo

From each memo displayed in MAXQDA’s “Overview of Memos”, 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.”

Overview of memos

All 33 Memos

Again, this touches on a positive attitude from his previous life s... He is able to maintain "strong mental health" and have a "an accident waiting for a place". Again, it seems like his fully deal with the situation.

	Document group	Document	Code	Title	Author	Preview
			Interview Guide To...	Interview ...	verbi	
		Jack		Jack	webteam	
		Kelly		Kelly	webteam	Kelly
		Vincent		Life strate...	Angela	Again, this touches on ...
		Vincent		Life strate...	Angela	The statement that "I d...
!	New York	George		Memo 22	Marina	
		LifeSatisf...		Memo 24	Julia	
	New York	George		Memo 24	Marina	
	New York	George		Memo 25	Marina	

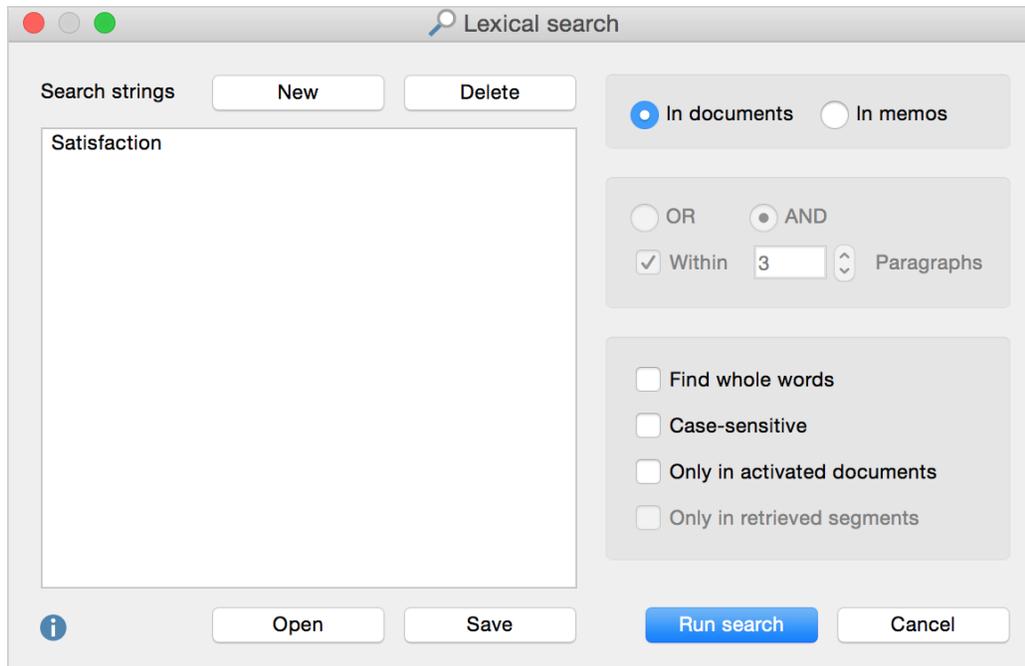
Jumping from a memo to its position in a document

12.8 Searching for Text in Memos

While a targeted search for a specific memo based on attributes such as “Document name”, “Author”, “Creation date”, or “Memo title” is realized within the “Overview of memos”, the search for actual words or strings in the memos themselves is realized using the **Lexical Search** function - unless a standard search in the “Preview” column, which includes the first 63 characters of the memo, is sufficient.

To search in the memo text, select **Analysis > Lexical Search** and enter the search word or words.

If you want to search in the memos, you must specify **In memos** as the search criterion in the Lexical Search window; otherwise the search will take place in the documents themselves.



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.

Tip: A single click in the results table will highlight the memo in MAXQDA and in case of an In-Document Memo the “Document Browser” will be scrolled to the memo icon. A double click will open the memo and highlight the search hit.

12.9 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.

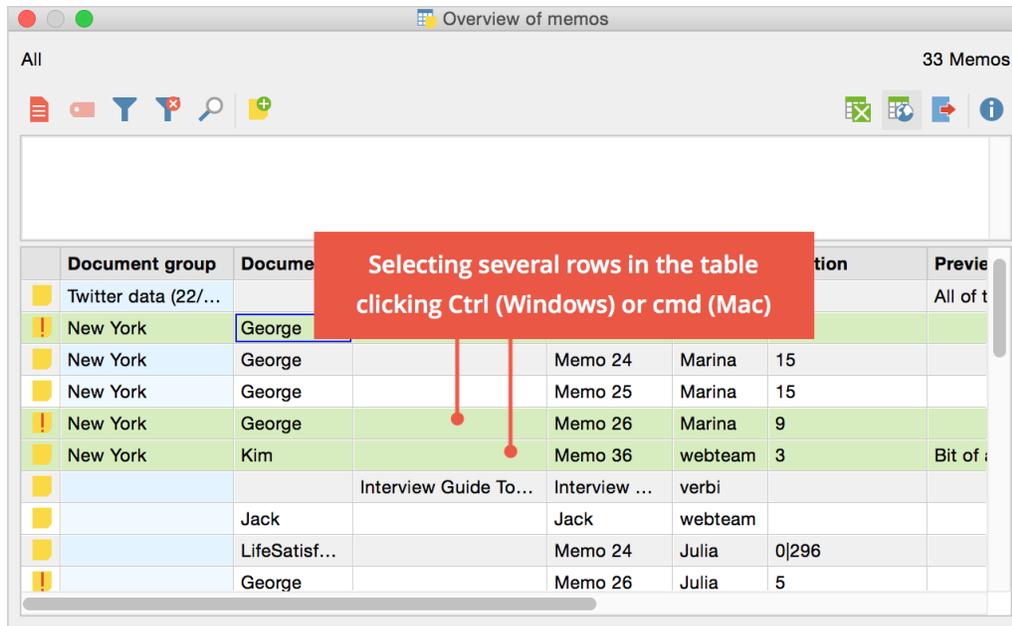
If you choose HTML or XLS/X as the export format, MAXQDA creates a table that is immediately opened in your default web browser such as Internet Explorer or Excel. It is also easy to print out the list in these formats.

MAXQDA 12 Overview of memos (6)

Document group	Document	Code	Title	Author	Memo text	Creation date	Origin	Position
		Money and Financial Issues	Money and Financial Issues	Angela	This very likely will overlap significantly with family and work issues.	01/09/2013 15:18:43	Code	
	Mary		Resentment towards parents	Angela	Resentment towards parents - I wonder how other college students living away	01/09/2013 15:18:43	In-document	9

Results of a memo export in HTML format

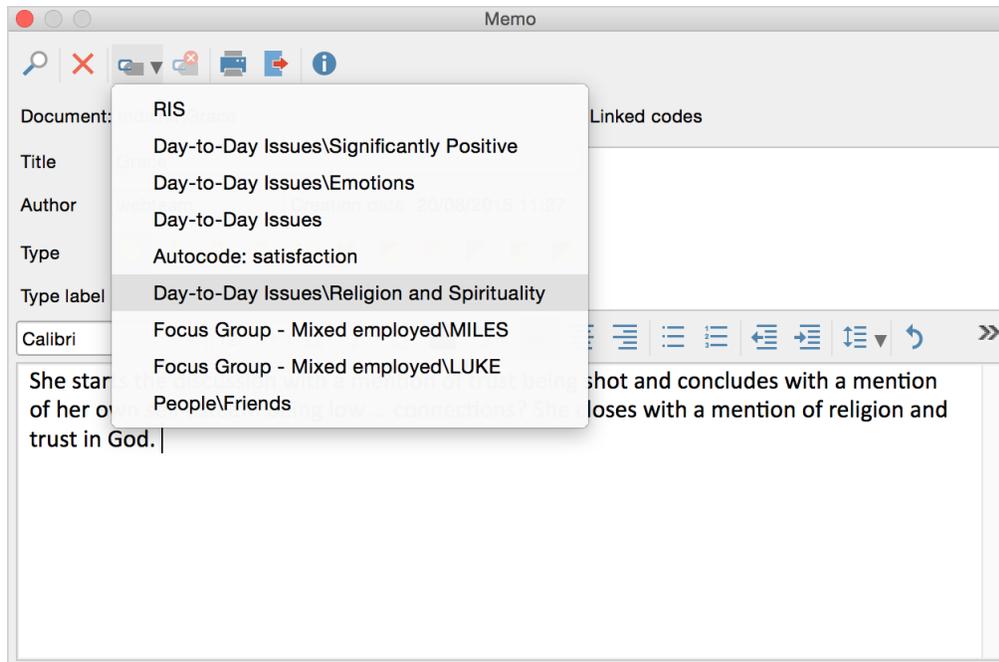
Note: The entire table with all of your memos will be exported unless you have selected some of the memos, which are then marked green. You can select a single memo by clicking on it with your mouse. If you want to select more than one, hold the Ctrl (Windows) or cmd (Mac) button as you click on them. 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 green in the memo table

12.10 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.

12.11 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.

12.12 Compiling Memos of 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 “Overview of memos” table containing all the memos attached to these document(s). As with the “Overview of memos”, 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.

12.13 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 wish to convert them into documents, so they can 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:

1. Open the “Overview of memos” by selecting **Analysis > Overview of memos**
2. Right-click on the **memo** to be transformed
3. 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.

Tip: The function is also available in the context menu of any memo symbol. Right-click on a memo icon in MAXQDA and choose **Convert to a document** to transform the memo into a document in the „Document System“.



13 Variables

13.1 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:

	Document group	Document name	Creation date	NGO member	Gender	Age
☰	Interviews	B01 Peter	24.08.15 10:10	no	m	32
☰	Interviews	B02 Tara	24.08.15 10:11	no	f	28
☰	Interviews	B05 Ben	24.08.15 10:12	no	m	40
☰	Interviews	B03 Riley	24.08.15 10:11	yes	f	43
☰	Interviews	B04 Matt	24.08.15 10:12	yes	m	34

Example of application of Document Variables

Code Variables

The development of code variables in MAXQDA makes it possible for you to define variables within a document and to use their values as selection criteria during the evaluation process. In this way, you can, for example, activate codes by defined criteria.

13.2 The “List of document variables” and the “List of code variables”

MAXQDA allows you to add variables to each document and code.

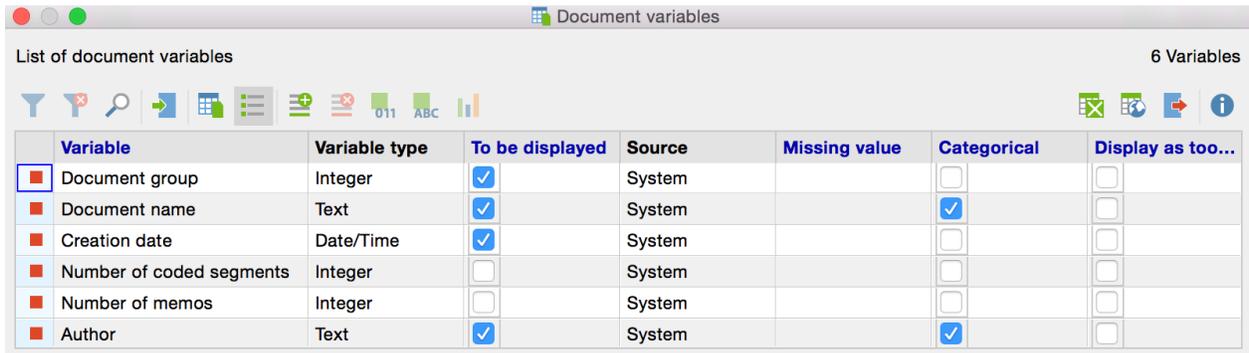
Two views are available from which to manage variables: The “List of variables” and the “Data editor.” In the “List of variables,” all variables defined within the project are listed in a table. The “Data editor” presents the data table as a square matrix showing “Rows x Columns,” similar to a statistics 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



Variable	Variable type	To be displayed	Source	Missing value	Categorical	Display as too...
Document group	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
Document name	Text	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Creation date	Date/Time	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
Number of coded segments	Integer	<input type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
Number of memos	Integer	<input type="checkbox"/>	System		<input type="checkbox"/>	<input type="checkbox"/>
Author	Text	<input checked="" type="checkbox"/>	System		<input checked="" 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:

- **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

Variable	Variable type	To be displayed	Source	Missing value	Categorical
Parent code	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
Code	Text	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>
All coded segments	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
Activated coded segments	Integer	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
Author	Text	<input checked="" type="checkbox"/>	System		<input checked="" type="checkbox"/>
Creation date	Date/Time	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
Code alias	Text	<input checked="" type="checkbox"/>	System		<input type="checkbox"/>
All coded segments %	Floating point	<input checked="" type="checkbox"/>	System	0	<input type="checkbox"/>
Activated coded segments %	Floating point	<input checked="" type="checkbox"/>	System	0	<input type="checkbox"/>
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

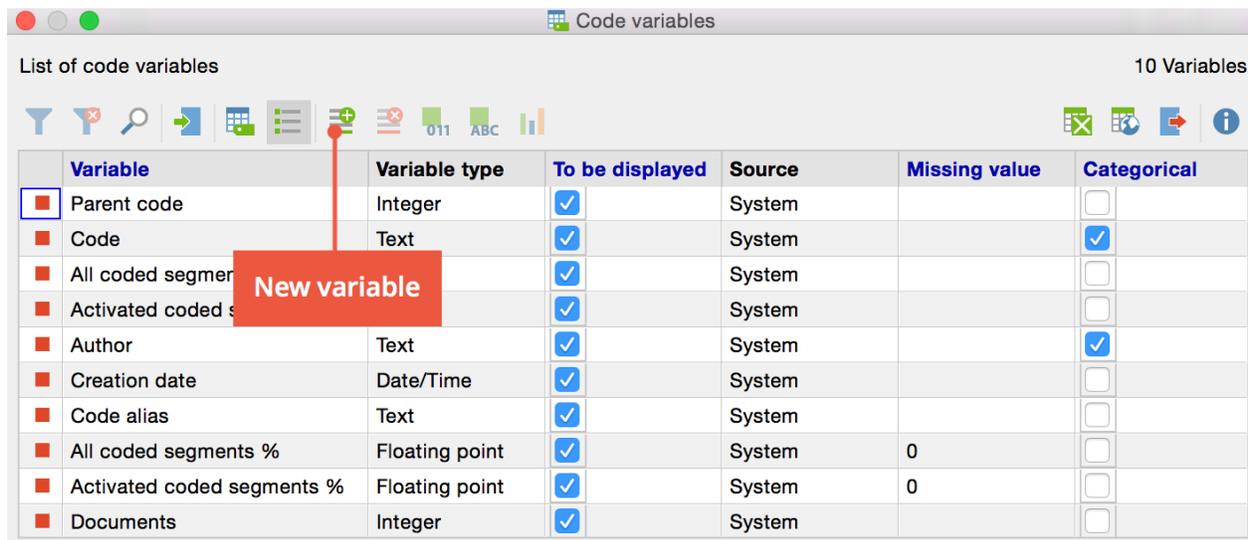
Both the “List of document variables” and “List of code variables” can be managed from the toolbar, which contains identical symbols for both lists.

- Import data** – allows import of spreadsheets in XLS/X format.
- Data editor** – switches from the Variable view to the Data view.
- Liste of variables** – switches from the Data view to the Variable 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-/code variables** – generates a frequency table or chart for the indicated variable.

13.3 Adding new variables

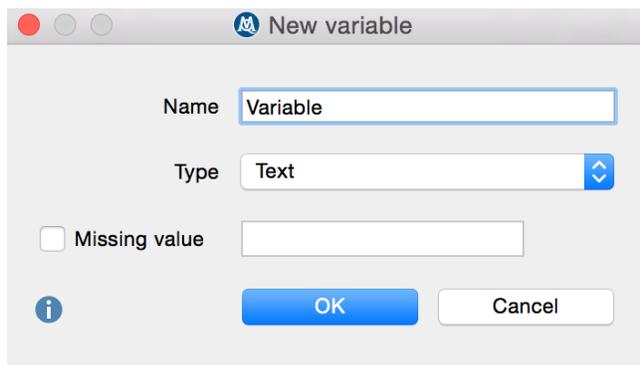
You can add new variables to both the “List of document variables” and “List of code variables”:

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.



Creating a new variable with the icon in the toolbar

The following window will appear:



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:

- Text
- Integer
- Floating point (number)
- Date/time

- Boolean (true/false)

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 63 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.

13.4 Changing Variable Types

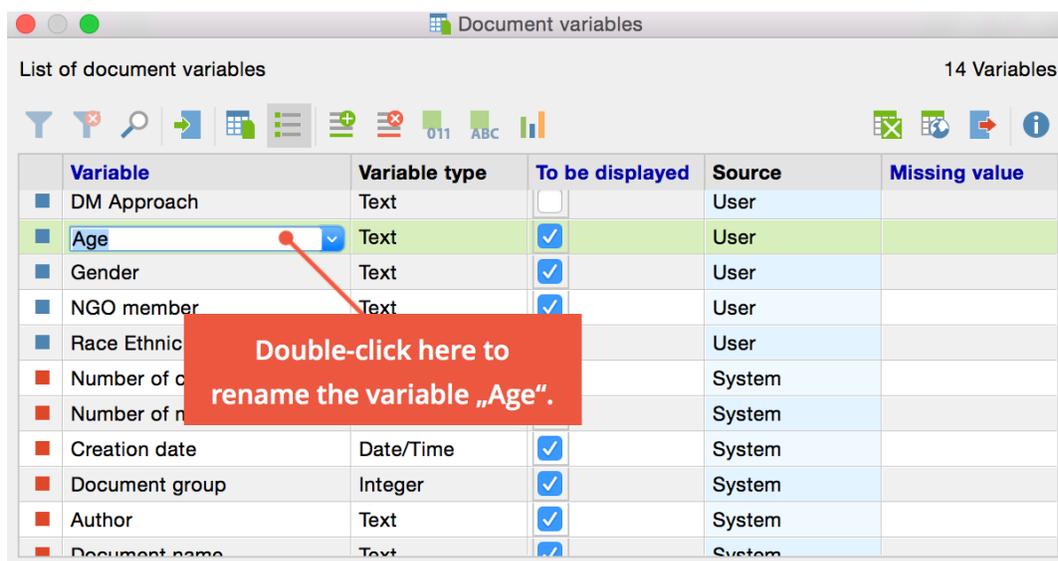
MAXQDA allows for changes in variable types for existing variables:

- 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 text variables by clicking the .

Transforming a variable to binary or string cannot be reversed.

13.5 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 is possible at any time and does not affect the variable’s stored values.

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 in green. 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.

13.6 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. The variables are

displayed in the columns; while the rows display the document variables for documents or the code variables for codes. For document variables the table will contain as many rows as there are documents in the “Document System”; for example, in an interview study, the number of rows will correspond to the number of interviewees. For code variables, the number of rows corresponds to the number of codes, and their subcodes for which code variables were queried.

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,
 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:



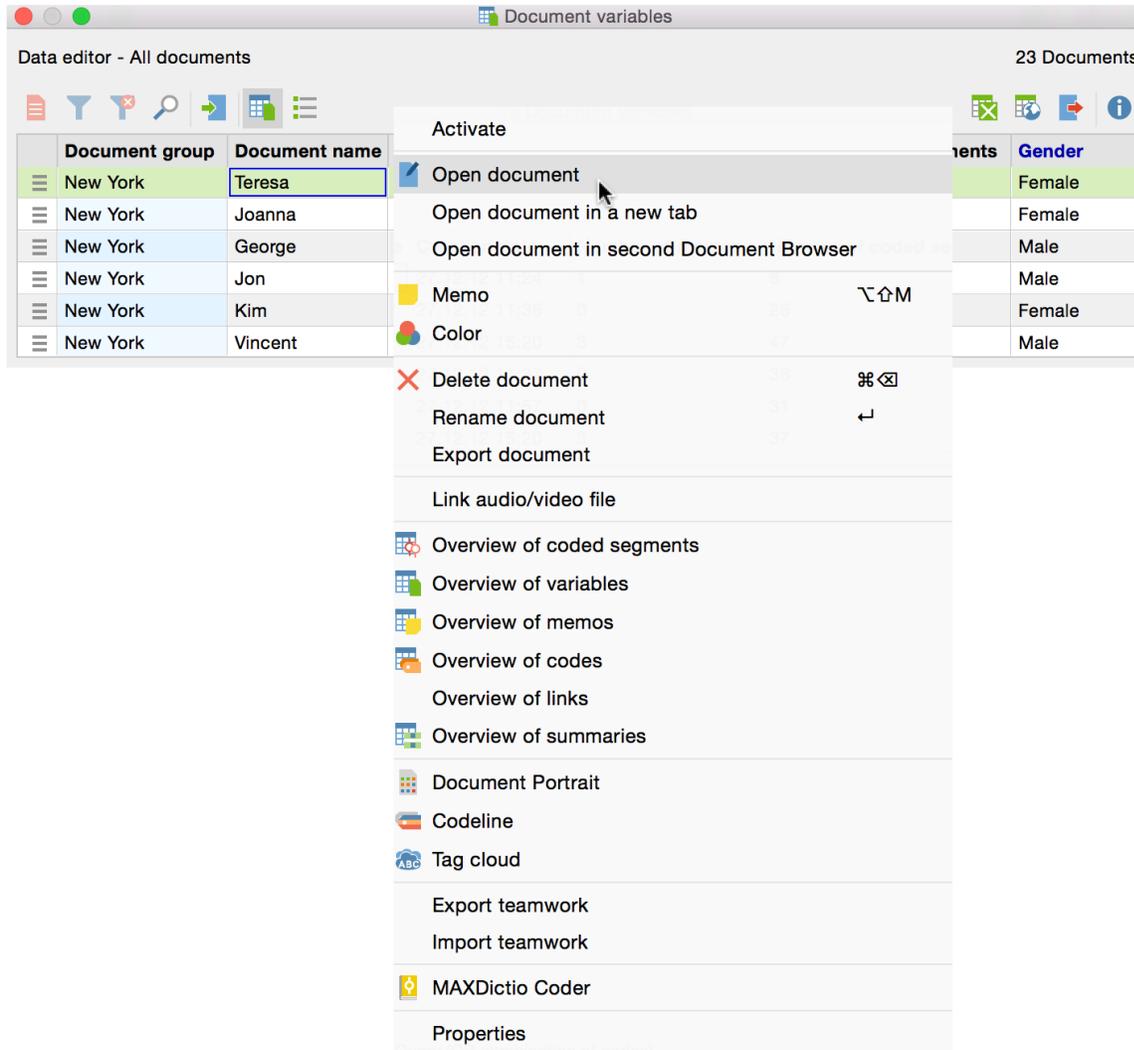
Quick button for accessing the “Data editor (document variables)”

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						
Data editor - All documents						22 Documents
Document group	Document name	Creation date	Number of memos	Number of coded segments	Gender	
New York	Joanna	27.12.12 11:36	0	26	Female	
New York	George	27.12.12 15:20	3	47	Male	
New York	Jon	27.12.12 11:37	0	38	Male	
New York	Kim	27.12.12 11:57	0	31	Female	
New York	Vincent	27.12.12 15:20	3	37	Male	
New York	Teresa	17.08.15 19:15	0	0	Female	
New York	Milly	17.08.15 15:53	0	1	Female	

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 **Data editor**  button, or,
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.

An extensive context menu, the same as in the “Code System”, is also available for individual codes.

The “Data editor” Toolbar

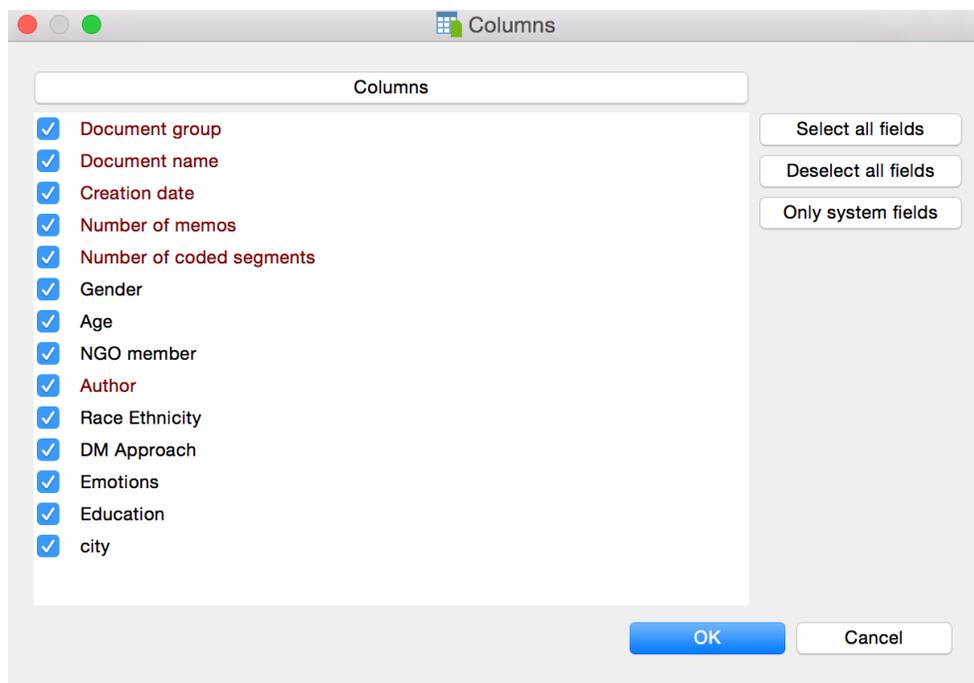
At the top of the “Data editor” there is a toolbar, which provides easy access to multiple functions including the following:

-  **Import data** – allows you to import a table for code variables
-  **Data editor** – switches from the Variable view to the Data view.
-  **List of document variables** – switches from the Data view to Variable view.
-  **Open as Excel table** – generates a table in XLS/X format and opens the program associated with this file format. If specific rows are selected (highlighted in green), only these rows will be displayed, otherwise the entire table will be displayed.
-  **Open as HTML table** – generates a table in HTML format and opens it in the selected default browser. If specific rows are selected (highlighted in green), only these rows will be displayed, otherwise the entire table will be displayed.
-  **Export** – a table will be saved in XLS/X, HTML, RTF or TXT (tab-delimited) format, then opened in Excel or in the default browser. If specific rows are selected (highlighted in green), only these rows will be displayed, otherwise the entire table will be exported.

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

13.7 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**.



id	Creation date	Number of memos	Number of coded segments	Age	Race Ethnicity
	17.08.15 19:15	0	0	19 or less	White
	27.12.12 11:24	1	8	Over 25	White
	27.12.12 11:36	0	26	20-25	White
	17.08.15 15:53	0	1	19 or less	Non-White
	27.12.12 15:20	3	47	20-25	White
	27.12.12 11:37	0	38	19 or less	White
	27.12.12 11:57	0	31	Over 25	Non-White
	27.12.12 15:20	3	37	20-25	White
..	20.02.13 16:14	0	51	Over 25	White
..	20.02.13 16:14	0	58	Over 25	White

Options for the variable value in the quick list

13.8 Exporting Document and Code Variables

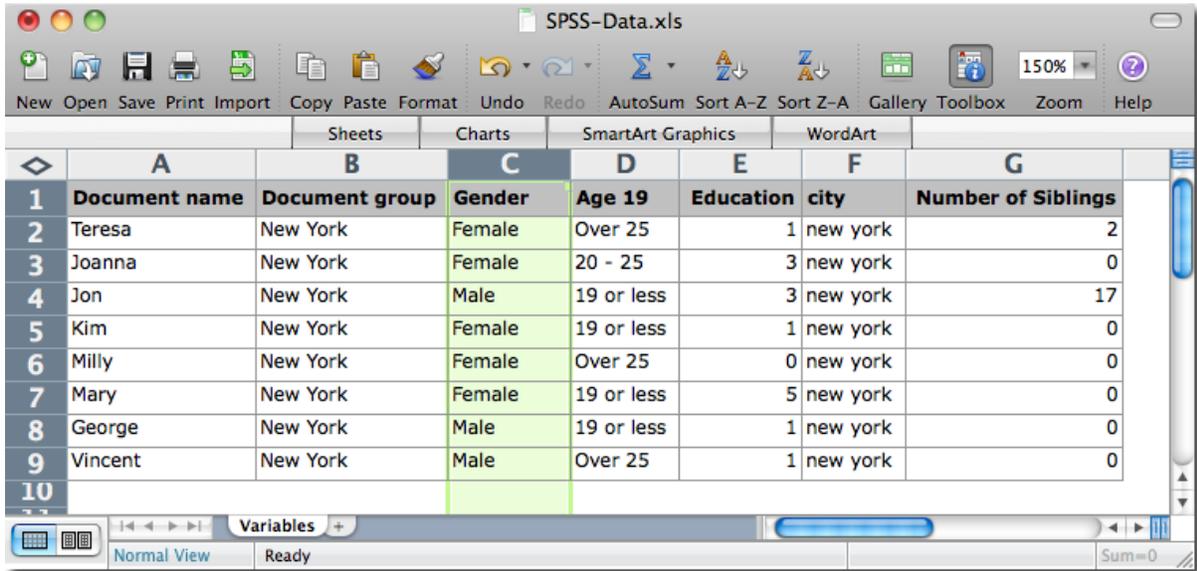
MAXQDA provides basic functions for the statistical analysis of variables, and makes it possible to create frequency tables and diagrams for individual variable values. For further analysis, such as cluster or factor analysis, it is necessary to export the data table of document or code variables in order to perform the statistical analysis in the appropriate program.

To export the variables:

1. Click on the  **Export** button in the toolbar of the "Data editor" or choose **Variables > Export data (document variables)** or **(code 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
 - Excel (XLS/X)
 - SPSS Data File (SAV), which is only available for the document variables and works fine in most statistics programs,
 - SPSS Syntax File (SPS), which is only available for the document variables,
 - Text (TXT, tab delimited)
 - Rich Text Format (RTF)
 - Website (HTML), and TXT (tab delimited).
4. Select **OK**.

Note: In some statistical programs, the variable names are limited in length. As the length of the variable name in MAXQDA can be up to 63 characters, it is recommended that you shorten the variable names for export in order to avoid potential problems during subsequent work with the statistics program. Choose variable names in which the first 8 characters of the variables differ in each case to avoid duplicates in the statistical software when you import the file. This will only be necessary

if you transfer data via Excel format – if you use the SPSS export, MAXQDA will use short variable names automatically.



	A	B	C	D	E	F	G
1	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 data matrix in Excel

Tip: The variable matrix can also be transferred via the clipboard. You can either select the entire matrix using the keyboard shortcut Ctrl+A (Windows) or cmd+A (Mac), or select individual rows by clicking on them while holding down the Ctrl (Windows) or cmd (Mac) button. Use the keyboard shortcut Ctrl+C (Windows) or cmd+C (Mac) to copy the selected data onto the clipboard.

13.9 Importing 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.

Import Data from Excel

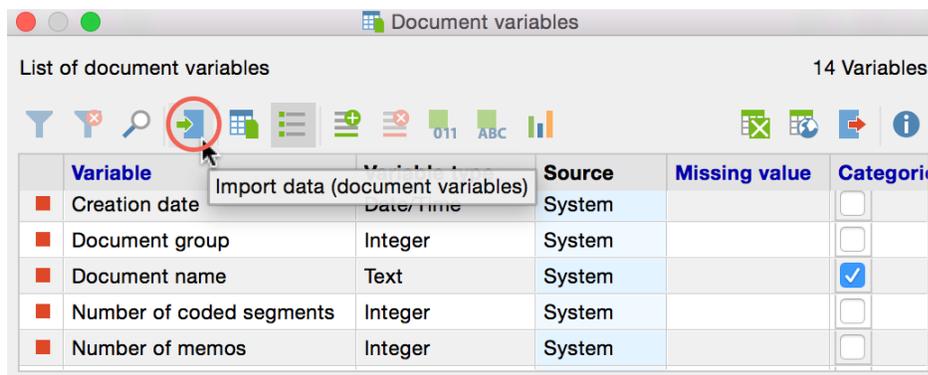
MAXQDA can import data from XLS/X files. The data must be organized as follows:

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 then include as many different variable columns as you wish.

Note: The variable values for documents that 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 and saving the document, you can 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)**  symbol 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:

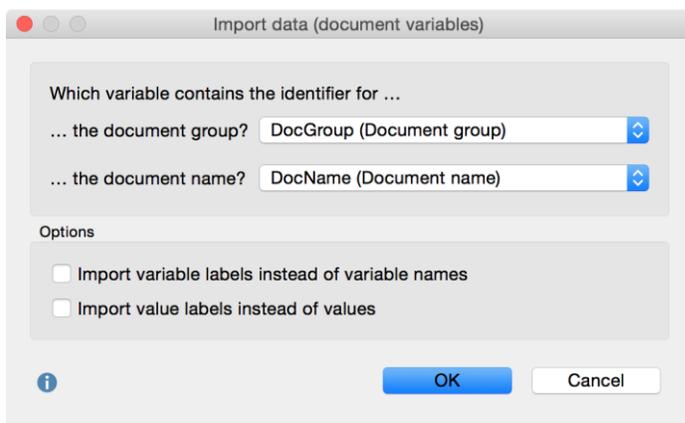
1. All variables in the import file that did not yet exist in the MAXQDA project are created.
2. Variables that already existed will be updated with the new values in the import file.
3. Empty values (“system missings”) for variable types integer and floating point will be imported as -999.

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.

Import Data from SPSS

You can also import a data matrix for the document variables from a SPSS data file (extension SAV). For the import MAXQDA needs to match the cases of the SPSS data file with the document names in the opened MAXQDA project. Therefore it is necessary, that the data file contains a variable (a column) for the document group as well as a variable for the document name.

1. Please 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)**  symbol in the "List of document variables."
2. Then choose a SPSS data file in the appearing file dialog.
3. A new dialog will appear, that allows you to set several options:



Options for importing a SPSS data file

4. In the upper part you can select which variables (= columns) contain the information about the document group and the document name to match the cases with the appropriate document name. MAXQDA will choose the first two columns of the SPSS data file, if the data file doesn't contain variables that are labelled with "DocGroup" and "DocName." You will find the variable labels in brackets behind the variable names for better navigation in the list of variables.
5. Furthermore, you can switch on two additional options:
6. **Import variable label instead of variable name** – If you choose this option, MAXQDA won't import the variable names, but their labels, which are usually longer and easier to read and to understand. You should use this option, if you want to import a SPSS data file that has been created by exporting the document variables from MAXQDA. Then it will be easy to update a variable which values have been changed in SPSS. Please note that the length of variable names in MAXQDA is limited to 63 characters, so a longer name may be truncated.
7. **Import value labels instead of values** – usually, standardized answers will be represented in SPSS by numbers, e.g. a 1 may be used for "female" and a 2 for "male". If you see these numbers only in MAXQDA without knowing what a "1" and "2" means, it won't be very useful, so this option should only be deactivated if you are sure you want to import the values instead.
8. 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:

- All variables in the import file that did not yet exist in the MAXQDA project are created.
- Variables that already existed will be updated with the new values in the import file.
- If you have defined missing values in SPSS only the first missing value (defined in section “Discrete missing values” in the SPSS dialog) will be imported (only for variable types integer and floating).
- System variables won’t be changed.
- If the import file contains identical document names in the same document group, the last case will overwrite the previous ones.
- Empty values (“system missings”) for variable types integer and floating point will be imported as -999.

13.10 Importing Code Variables

MAXQDA can import data from XLS/X files. The data must be organized as follows:

Code	Variable 1	...	Variable N
Parent code 1\Code 1	Variable value for code 1		Variable value for code 1
Parent code 1\Code 2	Variable value for code 2		Variable value for subcode 2

The first column heading is the unambiguous assignment of variable values to a code, so this column and its heading are mandatory. Each line must designate a code in the corresponding column. For subcodes, the entire path must be specified in the code system, in which the codes are separated by a backslash.

Tip: To insert a backslash “\” on a Mac, use the keyboard command alt+⌘+7.

Only when a code, which matches this information exactly, is found in the “Code System” will the variable be imported. You can add as many variables as required in the subsequent columns.

After preparing and saving the import data, 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:

9. All variables in the import file that did not yet exist in the MAXQDA project are created.
10. 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.

13.11 Importing and Exporting Variables from and to SPSS and other statical packages

Importing Variables from SPSS

You can import a data matrix from SPSS into the document variables directly from a SPSS data file with the extension SAV. You will find detailed information on this topic here: [Import Data from SPSS](#)

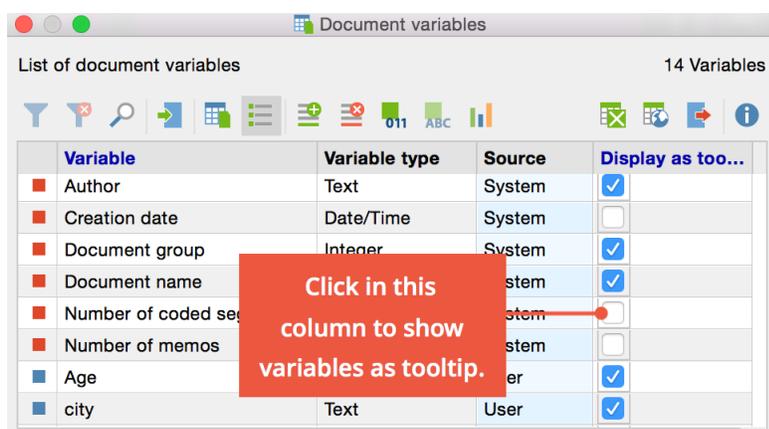
Exporting Variables to SPSS

MAXQDA also allows for exporting the document variables a SPSS data file (SAV), which can be read from most statics software packages, including the free SPSS clone PSPP. Also, you can export the document variables into a SPSS syntax file (SPS). Plesse see here for more information: [Exporting Document and Code Variables](#)

13.12 Displaying Document Variables as Tooltips

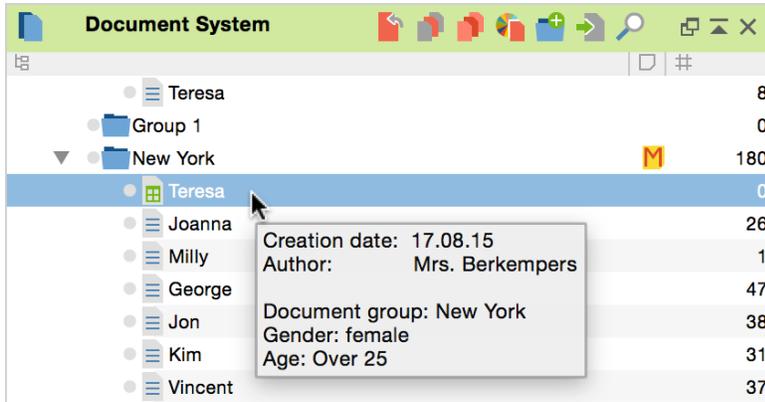
It is often necessary to call up background information on a document in the “Document System” (for example, the age or gender of a participant, or whether this participant works for an NGO). To this end, you can choose as many document variables in the “List of document variables” as you wish; their respective values will then be displayed as tooltips in the “Document System.”

Check the box in the **Display as Tooltip** column in order to select the document variable to display`.



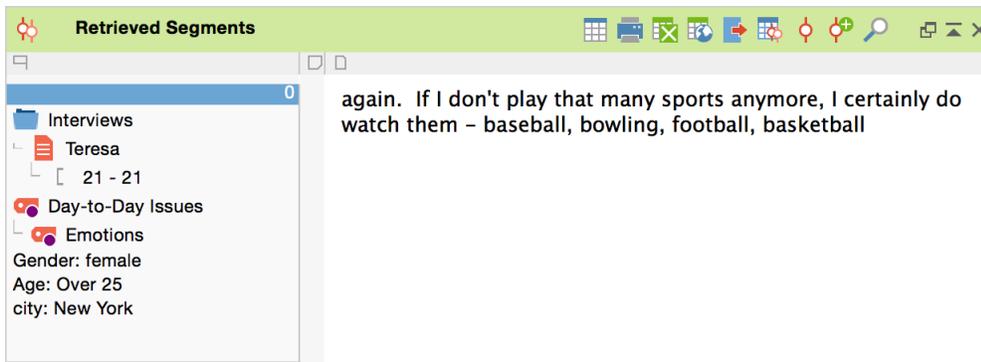
Select tooltip display for document variable

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 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.

14 Searching for Text: The Lexical Search

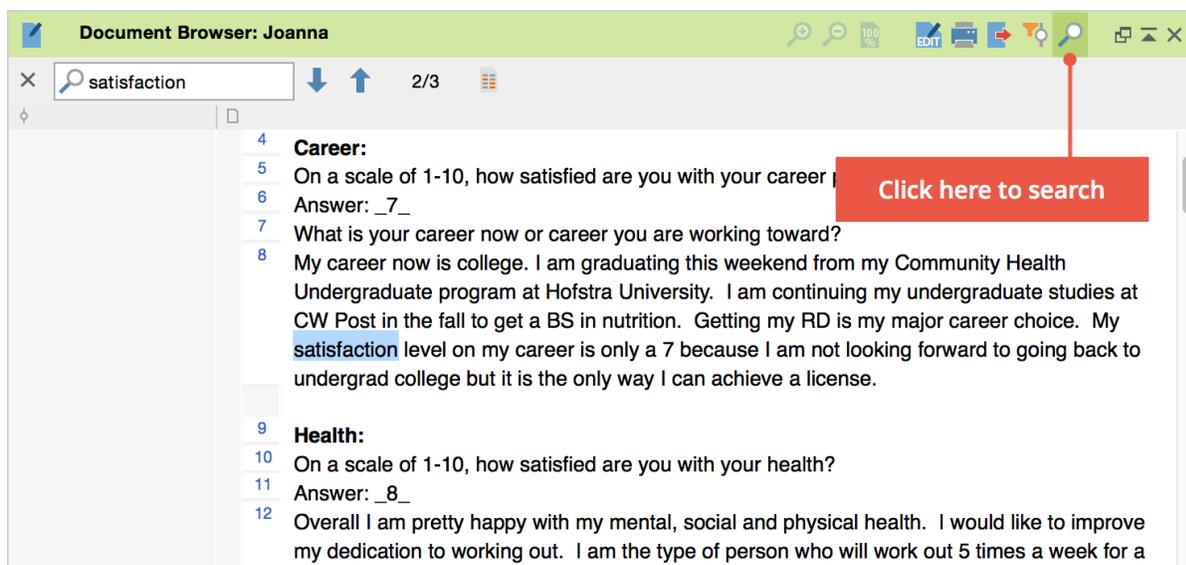
14.1 Lexical Search Options

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 that offers several possibilities to search for combination of search items in definable contexts, like paragraphs or sentences.

14.2 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.”



Search in the “Document Browser”

MAXQDA begins searching as soon as you type the first character in 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.



14.3 The Lexical Search: Options in the Dialog Window

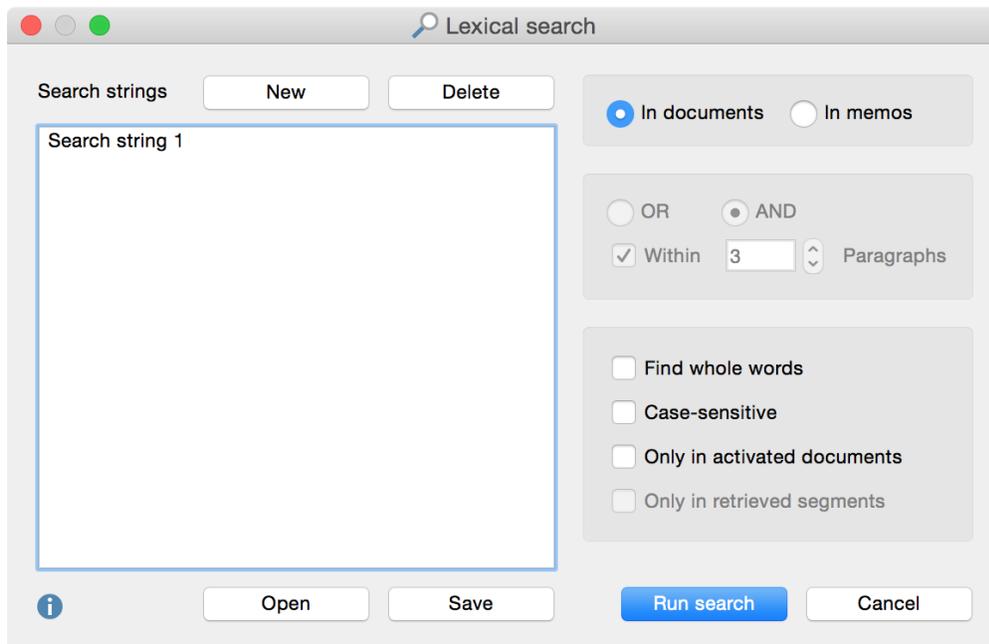
The lexical search function allows you to research your documents without first coding them. You can do searches of either

- 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.

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.



Tip: If you highlight text in the „Document Browser“ then right-click on it and select the option **Search for highlighted text**, the highlighted text will be displayed directly in the Lexical Search window.

Search strings may contain so-called “wild card” characters. The characters * or ? function as follows:

- 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.”
- The beginning of a word can be delimited by the character “<()”. The search string “<(inter)” would find “Interest,” “interesting,” but not “winter.”
- The end of a word can be delimited by the character “()>”. Thus, the string “(ks)>” would find “Hanks,” “Banks,” and “thanks,” but not “Bankside.”

Click the **Delete** button to remove search strings from the list. By holding down the Ctrl key (Windows) or cmd key (Mac), you can delete multiple search strings at once. You can also modify your search strings at any time.

You will find the options for the search procedure in the right pane of the Lexical Search window.

First, you must specify where you wish to search:

- If you select **In documents**, additional selection fields that were previously displayed in light grey will become available. These additional fields include “**Only in activated documents**” and “**Only in retrieved segments**”. If no texts are activated, these options will not be available.

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.
- **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** – If this option is NOT selected (check box left blank), the search extends through the entire document. For example, if the search strings “Public” and “Citizens” are entered, the entire document will be searched to see if each of the search strings occurs at least once. The results list will contain as many rows as there are documents in which the entered search strings do all appear.

If the box is checked and the number of paragraphs is specified, the search will proceed as follows:

Within 1 Paragraph: The search strings must occur within the same paragraph. For the example above, the results list would contain two rows, one containing the search string “Public” and the second containing the search string “Citizens”.

Within 2 Paragraphs: The search strings must occur within two paragraphs of one another. For the example above, if the search string “Public” occurs in paragraph 12, the search string “Citizens” must occur in paragraphs 11, 12, or 13 in order to register as a hit.

Note: The interval between paragraphs can be as large as desired. PDF documents will be ignored when the option “Within x paragraphs” is selected.

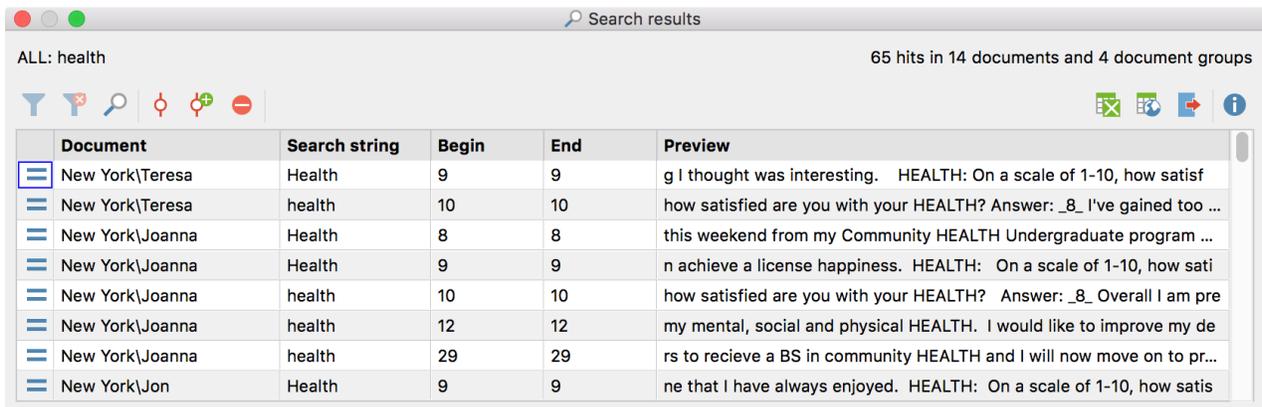
As soon as you click the **Search button**, the search will begin.

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 some time to find all of the results.

14.4 Search Results

Your search results will be shown in a table that appears as follows:



Search results window showing 65 hits in 14 documents and 4 document groups. The search string is "health".

Document	Search string	Begin	End	Preview
New York\Teresa	Health	9	9	g I thought was interesting. HEALTH: On a scale of 1-10, how satisf
New York\Teresa	health	10	10	how satisfied are you with your HEALTH? Answer: .8_ I've gained too ...
New York\Joanna	Health	8	8	this weekend from my Community HEALTH Undergraduate program ...
New York\Joanna	Health	9	9	n achieve a license happiness. HEALTH: On a scale of 1-10, how sati
New York\Joanna	health	10	10	how satisfied are you with your HEALTH? Answer: .8_ Overall I am pre
New York\Joanna	health	12	12	my mental, social and physical HEALTH. I would like to improve my de
New York\Joanna	health	29	29	rs to recieve a BS in community HEALTH and I will now move on to pr...
New York\Jon	Health	9	9	ne that I have always enjoyed. HEALTH: On a scale of 1-10, how satis

Example search results

Along with the usual filter functions, the toolbar at the top of the results window provides access to the following functions:

 **Autocode search results** – codes search results with an existing code. All search results that have not been excluded from the selection (and which display a Stop  symbol in the first column) will be autocoded.

 **Code search results with a new code** – codes search results with a new code. All search results that have not been excluded from the selection (and which display a Stop  symbol in the first column) will be autocoded.

 **Autocode/Export: ignore hit** – exclude selected rows from autocoding and exportation by clicking on this icon.

 **Open 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 green), only these will be included in the new table.

 **Open 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 green), only these will be included in the new table.

 **Export** – The table will be saved in XLS/X, HTML, RTF or TXT (Tab delimited) format, then opened in Excel or in the default browser. All rows that do not display a stop symbol will be exported.

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** (Windows) or **cmd+C** (Mac)).

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.

Note: Once you click on a hit, the corresponding document is opened and positioned exactly where the reference is located. The search term found is highlighted.

Search Results when Using the AND Combination for Search Items

If you search for more than one search item within the whole document, a paragraph – or when using the extended lexical search within a sentence -, the search results table will not only list the hits for each search item separately. Instead, it will contain as many entries as combinations of the search items have been found inside the defined contexts, thus the number of documents, paragraphs or sentences in which all the search items exist. The following screen shows this for the search for „happiness“ AND „satisfaction“. In the column „Context“ MAXQDA informs you, if these search strings exist within a document, paragraph, or sentence.

A click on a row highlights the first hit of an entered search item within the context.

To get a list of each single hit of search items, click on the icon  **Detailed list of hits**.



Search results

ALL: happiness satisfaction 56 hits in 6 documents and 3 document groups

Document	Begin	Preview	Context
New York\Teresa	59	SATISFACTION in an individual face-to-face interview and...	1 Paragraph
New York\Joanna	8	SATISFACTION. I am continuing my undergraduate studi...	1 Paragraph
New York\George	9	SATISFACTION here...please include details on relevant a...	1 Paragraph
Websites & Literature\Su...	1: 45	SATISFACTION theory of happiness. International Journal...	1 Sentence
Websites & Literature\Su...	1: 337	SATISFACTION theory of happiness Jussi Suikkanen A...	1 Sentence
Websites & Literature\Su...	1: 436	SATISFACTION theories of happiness, an agent is happy...	1 Sentence

Search results when combining several search items with AND

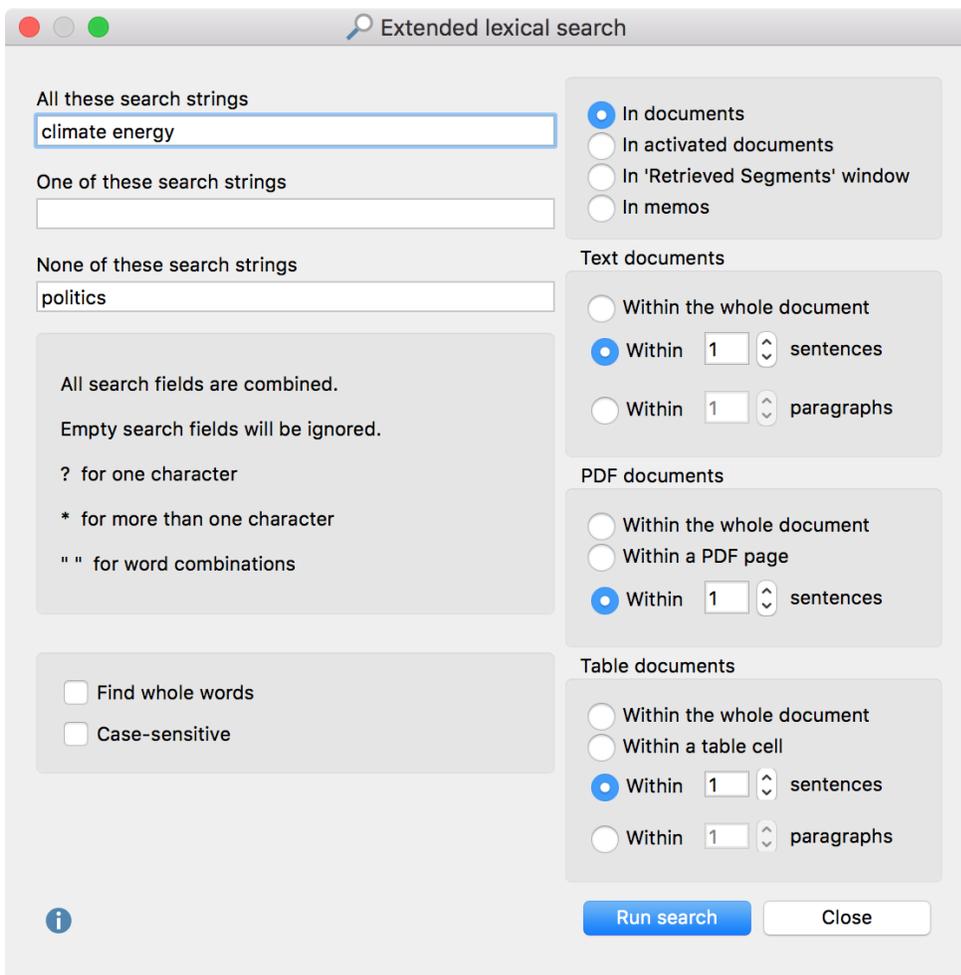
Note: When exporting the search hits or when autocoding them, MAXQDA uses the detailed list of search items.

14.5 The Extended Lexical Search

The **Analysis > 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.”



Extended lexical search dialog

The dialog is separated into several parts. At first you can enter search items in the text fields

- All these search strings (AND combination)
- Any of these search strings (OR combination)
- None of these search strings (search strings for exclusion)

Please note, that you can separate different search strings with a space. If you want to enter a combined search string you can use quotation marks like "Mahatma Gandhi" around your search string. Question mark "?" and asterisk "*" work as placeholders for a single character or for one or more characters. Use <() for word begin and ()> for word end, <(inter) will find "interest" and "interesting", but not "winter," and (ks)> will find "banks" and "thanks", but not "bankside."

In the upper right part of the dialog you can define, in which part of the project MAXQDA will search and in the options on the right you can define in which context the search items have to exist.

All three search entries will be combined with AND. In the screen above MAXQDA will present all sentences in which "climate" and "energy" exist together, but not "politics."

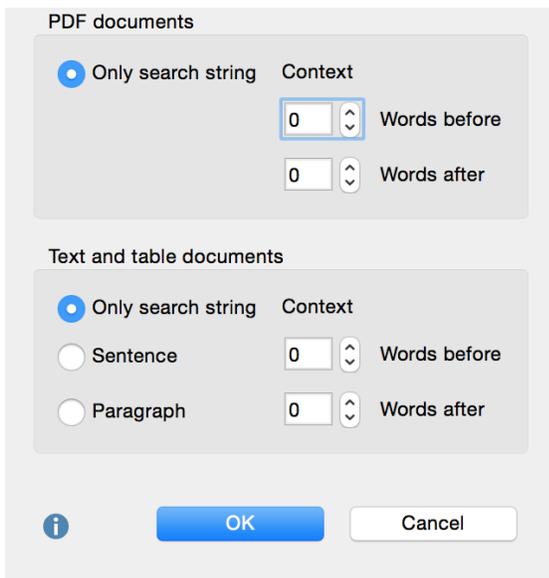
Note: Sentences are defined by MAXQDA according to the following rules: A sentence always begins following a period, question mark, exclamation mark, or colon. The following exceptions apply:

A number that is not four digits appears before a period (e.g. 1. or 2.).
 # A single character appears before a period (to exclude abbreviations).
 # Two identical characters appear directly before a period (e.g. ff. or pp.).
 # Literal speech in quotation marks belonging to the sentence itself.
 # First letter after a sentence is in small letters.
 # A number appears directly following the end of a sentence.
 # Quotation marks appear immediately after the end of a sentence.
 In text or table documents, a new sentence invariably begins after a paragraph.

The recognition of sentences in PDF documents is optimized for left-to-right languages and may not work as expected with right-to-left languages.

14.6 Exporting Search Results

The results table of the lexical search tool offers the possibility to export search results by clicking on the **Export**  icon in the toolbar of the results window. The following options window will appear, where the range of the data to be exported in relation to the search term can be defined:



PDF documents

Only search string Context

0 Words before

0 Words after

Text and table documents

Only search string Context

Sentence 0 Words before

Paragraph 0 Words after

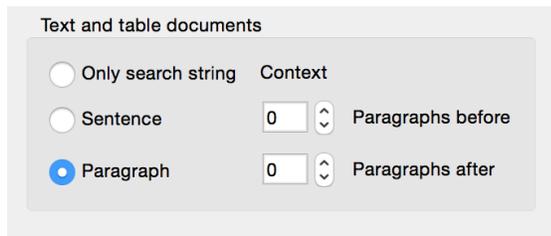
 **OK** Cancel

Options for search results output

The export window is divided into two parts. Options for the export of search results from a PDF document can be selected in the upper section, with the corresponding options for search results from text and table documents in the lower section. Exports of pure search results as a simple list is generally not useful; therefore you can define the range for the export of search results.

For PDF documents, you can define how many words before and after the actual search term are exported. This option is also available for text and spreadsheet documents, in addition to **Sentence** and **Paragraph** options. When you select one of these two options, the name of the context options

will change and you can choose how many sentences or paragraphs before and after the search term you want to include:



Setting the data range for export

Setting **Paragraph** with **0 Paragraphs before** and **0 Paragraphs after** means that only paragraphs in which the search term is found will be exported. If the term appears several times in the same paragraph, the paragraph is still listed only once, whereas the search term or terms will be listed more than once.

Setting **1 Paragraphs after** means that the paragraph containing the search term, as well as the following paragraph, will be exported.

When you click OK, a window will pop up in which you can select the file name, format, and location to be saved. The following options are available:

- Excel (XLS/X),
- Website (HTML),
- Maintext in Rich Text Format (RTF)
- Table in Rich Text Format (RTF)
- Tab Delimited Text (TXT)

The result as Maintext in Rich Text Format will appear as follows:

Document: New York\Teresa (28 - 28)
 Search string: 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 +/- 0 Paragraphs

Each search result consists of the source data, including the name of the document group and document, and the position in which the search string was found (in brackets), followed by the search string itself.

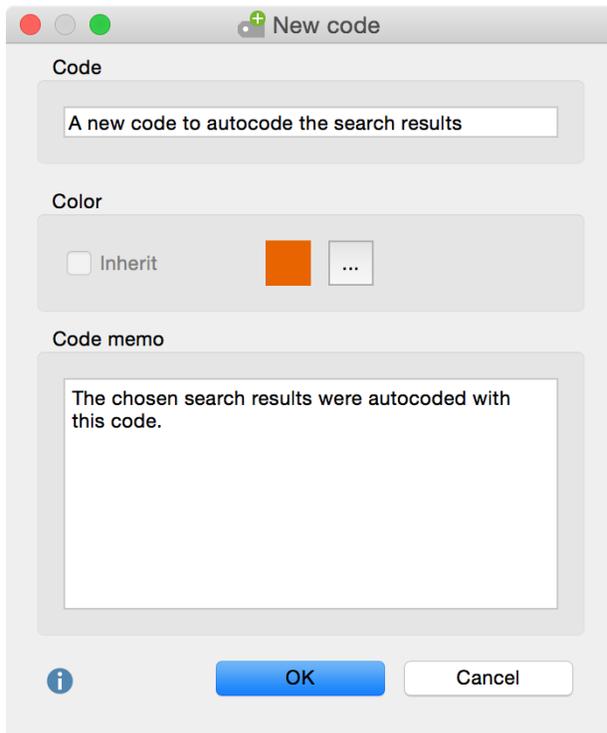
Note: The recognition of sentences in PDF documents is optimized for left-to-right languages and may not work as expected with right-to-left languages.

14.7 Autocoding Search Results

Like the segments in the "Retrieved Segments" windows, lexical search results are automatically coded, meaning all text passages found in the search are coded with a specific user code. This automatic coding has the advantage of being easy and reliable. The disadvantage, however, in comparison to human coding, is that there is no examination of the relevance of the text passage. The occurrence of a specified string in the text triggers the coding. For example, if the word "Mother" is automatically coded with the code "Family", references to "Mother Earth" would also be included.

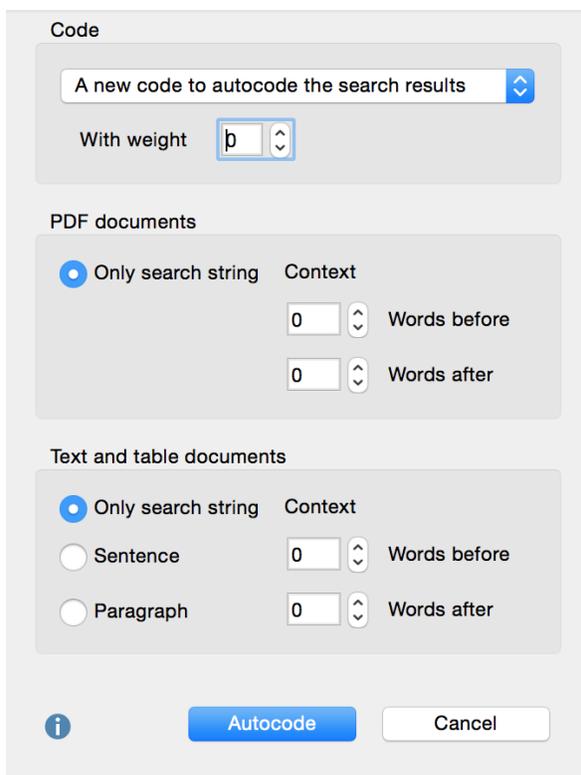
To code the search results automatically, follow these steps:

1. The best way to code search results automatically is to click on the **Autocode search results with a new code** symbol.
2. In the dialog box that appears, enter the new code and click OK. The new code will be inserted at the top of code system.



Autocode search results: Define a new code

3. In the ensuing options window you can set the range before and after the search term as well as the weight, which is established during the coding process.

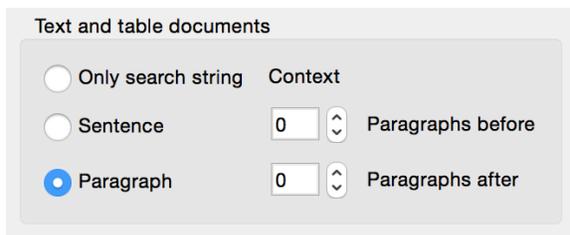


Setting options for automatic coding of search results

In the "Code" field, you establish with which code MAXQDA should encode the search results. The "Quick list of codes" – which lists the most recently used codes – is displayed in this window. The code that you created earlier is automatically selected here. Furthermore, a weight value can be set for all coded elements, that is to say, all segments will be coded with the same weight.

In the "PDF documents" field, you can set whether only the respective search result should be encoded, or whether additional words before and after the search results should be encoded as well. These criteria applied only to PDF files.

In the "Text and table documents" field, you can determine whether sentences or paragraphs before or after the search result should be encoded.



Setting the parameters for Autocoding

Setting **Paragraph** with **0 Paragraphs before** and **0 Paragraphs after** means that only the paragraph in which the search term is found will be coded. If the term appears several times in one paragraph, it will nevertheless be coded only once

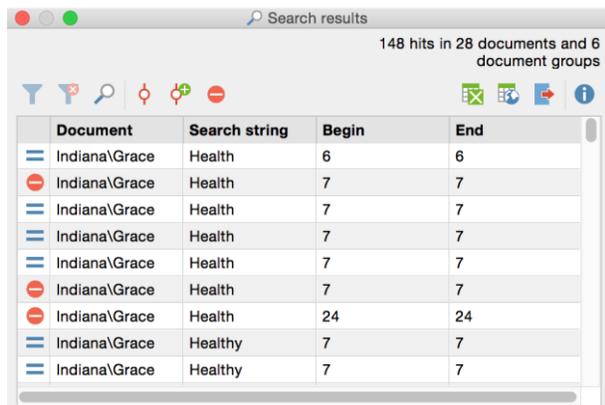
The setting **1 Paragraph after** means that the paragraph in which the search term is found as well as the following paragraph will be coded. Again, if the term appears several times in one paragraph, it will nevertheless be coded only once.

Note: If you do not want to code with a new code, but with an existing code from the "Code System", you can use the **Autocode search results**  option. Before you start the process, click on the desired code in the Code System, which will cause the code to appear in the list of recently used codes in the Autocode options window.

Exclude Search Results from Autocoding

Fundamentally, all search terms that appear in the results list will be autocoded. However, before executing the autocode function, you can review the list of search terms in order to decide whether each term should be included or not. Once one or more lines in the results table have been selected, click on the red icon  **Autocode/Export: ignore hit** in order to exclude the entry.

The fastest way to exclude a term is to double-click in the first column.



Document	Search string	Begin	End
Indiana\Grace	Health	6	6
 Indiana\Grace	Health	7	7
Indiana\Grace	Health	7	7
Indiana\Grace	Health	7	7
Indiana\Grace	Health	7	7
 Indiana\Grace	Health	7	7
 Indiana\Grace	Health	24	24
Indiana\Grace	Healthy	7	7
Indiana\Grace	Healthy	7	7

Exclude search terms from autocoding

Note: The selected codes are incorporated into the undo coding list which can be accessed from the Code toolbar with the  icon. This action can be reversed with a single command if necessary.

14.8 Keyword in Context (KWIC)

Often, you wish to determine the context in which a given term is used. In this case, you can create and print a so-called KWIC (KeyWord In Context) listing. The procedure is as follows:

1. Perform a lexical search by keyword.
2. In the results window, click the **Autocode search results with new code**  symbol and set the range, for example 10 words before and 10 words after.
3. After the autocoding is complete, double-click the newly created code in the "Code System".

In the next step, you have several options:



- Either you can generate and print the output data in XLS/X, HTML or RTF format by clicking the **Export icon** in the toolbar, or
- Create a new code in the “Code System,” transfer it to the quick list, and autocode the search results with this code.

The second 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. A table view is also available. To view the results as a table, double-click on the newly inserted code, whereupon MAXQDA will open the overview of coded segments. This can be exported as an Excel or HTML table or in RTF format.

The KWIC list has the following structure: each hit starts with the source data (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.

<p>New York\Milly (23-23) family family <u>Family</u>, 09 : My family my parents, my children, are very close. We share dreams and holidays and have much warmth with each other.</p> <p>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.</p>
--

Printout of search results from a file



15 Coding Query: Finding Coded Segments

15.1 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 to texts, but also to coded segments in images, PDF files, table documents, audio and video files.

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.” 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 grey, and activated documents are red.



An inactivated (left) and an activated (right) document

And how do you activate a document? There are several 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 or document sets. 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 or cmd Key

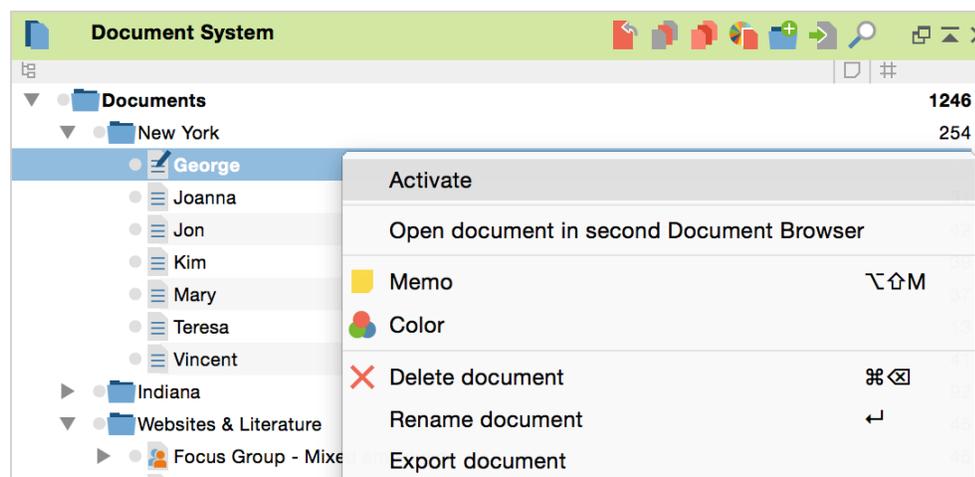
A simple way to activate documents, similar to selecting files in Windows Explorer or Mac Finder, is to hold down the Ctrl key (Windows) or cmd key (Mac) and to click on the required documents with the left mouse key. An entire document group or all project documents can also be activated in this way.

3. Activation with the Mouse

Alternatively, you can activate a document simply by clicking on the grey circle to the left of the document symbol, or on the number of coded segments, which is displayed at the end of the line.

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 (Windows) or cmd key (Mac) and click on the code you would like to activate. You can also simply click on the grey symbol to the left of the code, or on the code frequency, which is displayed at the end of the line.

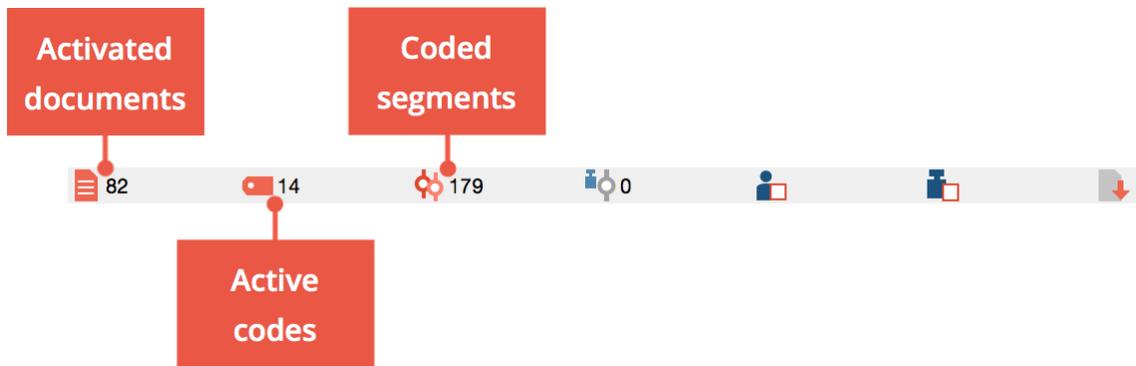


Activating a code via the context menu

Non-activated codes are displayed in grey, activated codes in red.

Tip: If you hold down the Shift key while clicking on a parent code, only the parent code, and not its subcodes, will be activated.

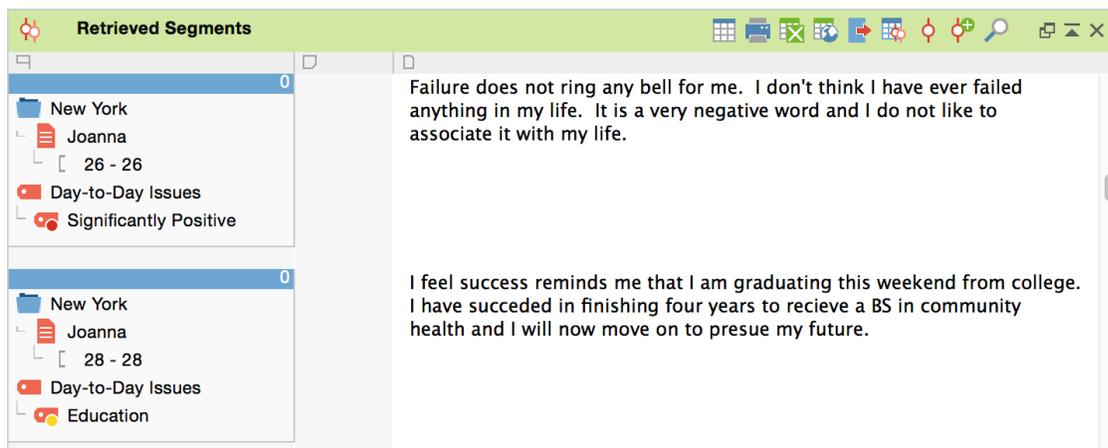
The status bar at the bottom of the MAXQDA window gives you information about the number of activated documents, activated codes, and the number of document segments that are being called up based on those activations.



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

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:

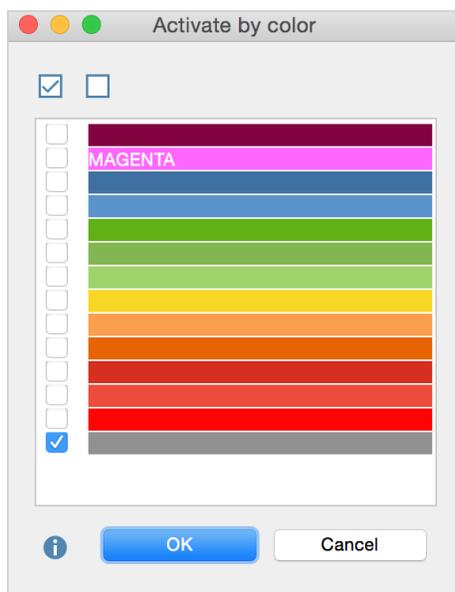


Activation information found in the status bar

15.2 Activation by Color

Documents and codes can be activated manually (by clicking on them), automatically (via **activation by variable**), and also by color. There are symbols 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

15.3 Removing Activations (Deactivation)

Cancelling the activation of documents or codes operates on the same principle as activation: either via the context menu or with the mouse (eventually using the Ctrl or cmd key.) When you want to



start a new Coding Query, 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 **Reset activations** button, which fulfills this function.



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”

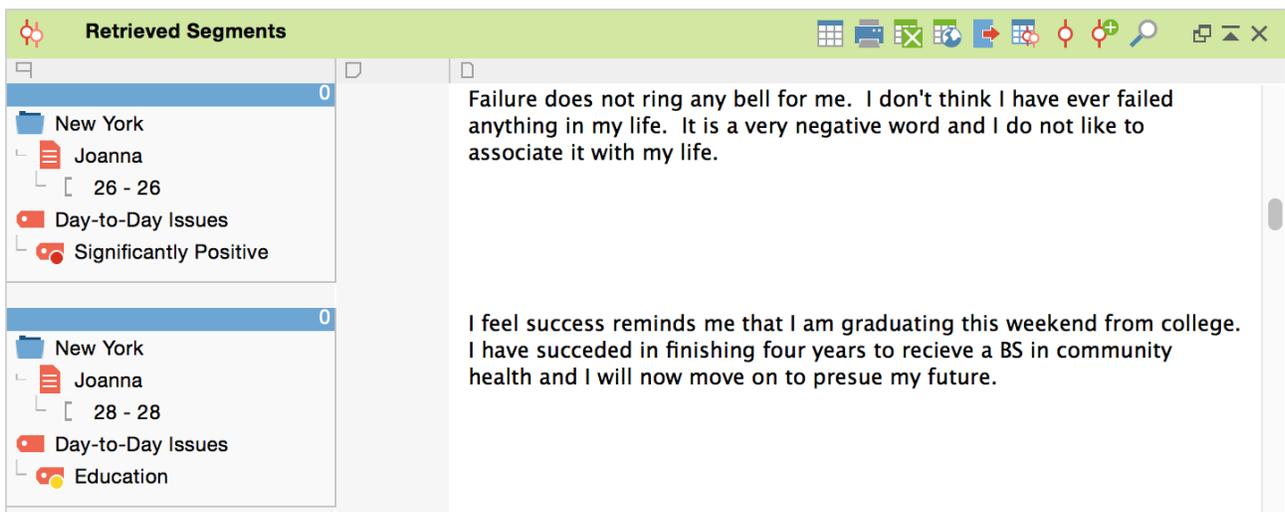


Button to “Reset activations” for all codes in the “Code System”

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**.

15.4 The “Retrieved Segments” Window

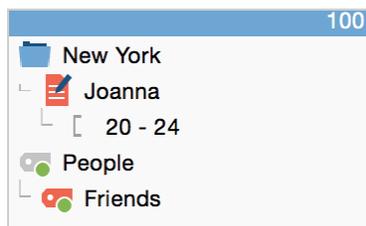
The “Retrieved Segments” window is a results window – it shows you all of the coded segments that were coded with any of the activated codes in any of the activated documents.



The “Retrieved Segments” window

Next to each retrieved segment (default is on the left side), you will find an 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.

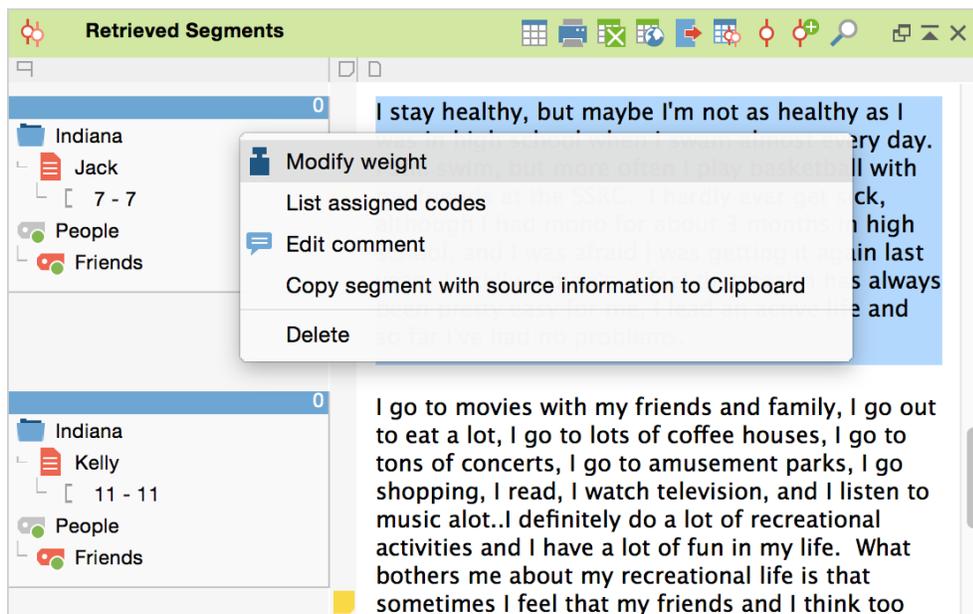


Info box for a retrieved segment

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:

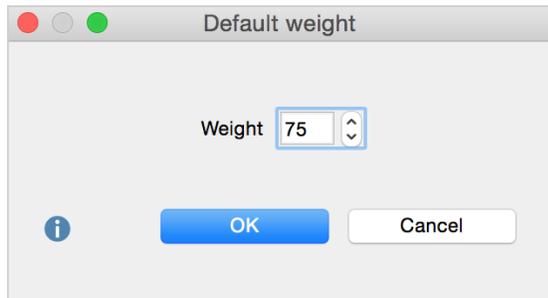


Context menu for the info box in the “Retrieved Segments” window

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



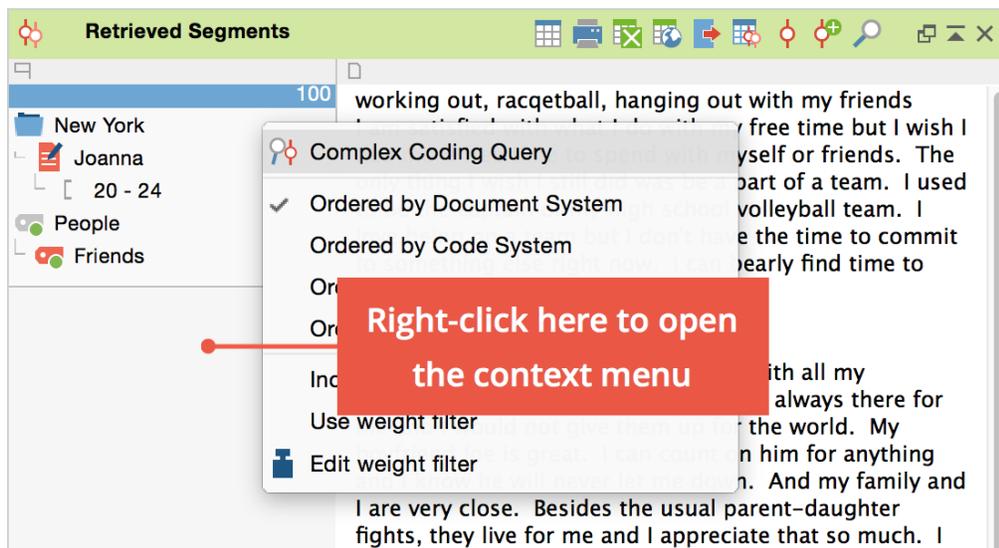
your deletion. You can also change the weight score for the coded segment. If you select **Modify weight**, the following window will appear:



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 info boxes appear.



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.

Tip: In the status bar at the bottom of the screen, the currently selected sort sequence is represented by an icon. This symbol, for example, symbolizes sort by documents . To customize the sort sequence, simply click the icon.

15.5 Include Subcodes in Retrieval

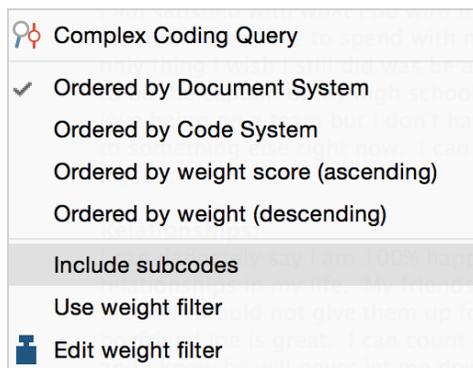
A hierarchical system of codes can be constructed with MAXQDA. The program offers an easy way to make use of the hierarchical structure.

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.



The “Include subcodes” option in the context menu of the “List of coded segments”

It is also shown in the status bar, whether or not the subcodes (or “code children”) are included. If there is a checkmark on the symbol, the subcodes are included. You can also change this setting by clicking on this icon.

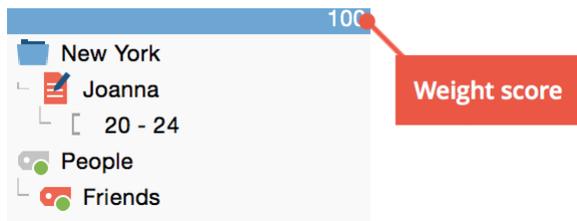


Subcode inclusion shown in the status bar

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)

15.6 Finding Important Coded Segments Using Weight Scores

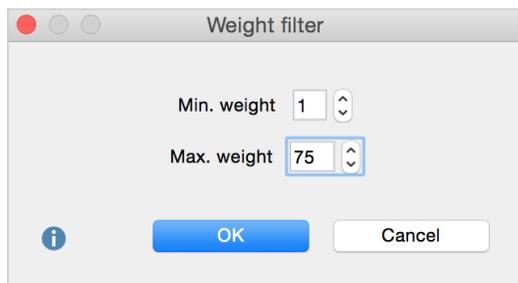
All segments that appear in the “Retrieved Segments” window have their weight listed next to the source data.



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.



Setting the range for the 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 “Intersection” and all functions of the Complex Coding Query.



Display of weight filter in the status bar

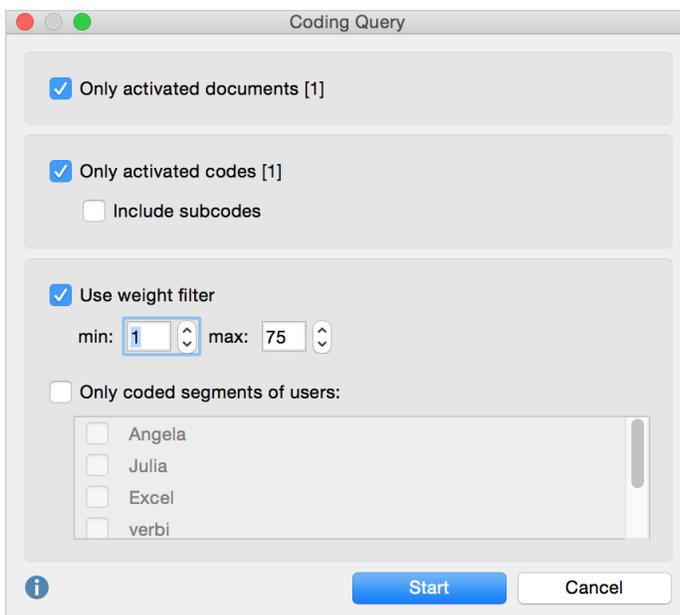
The status bar at the bottom of your screen contains information about the document and codes that are currently active as well as the weight option, symbolized by the paperweight. This icon tells you if the weight filter is active or not, as well as its range. By clicking on this icon, you can change the default value that is assigned when coding segments.

15.7 The Simple Coding Query

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** or
- By clicking on the **Coding Query**  button in the “MAXQDA standard” toolbar.

The following window will then appear:



Coding Query window

You can determine various settings for the query from the dialog window:

Only activated 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.



Only activated codes – Same options as for Documents.

Include subcodes – If selected, subcodes of codes will be included in the query.

Use weight filter – The output of coded segments can here be limited to segments of a specific weight range.

Only segments of user – The output of coded segments can here be limited to segments that were created by a specific user.

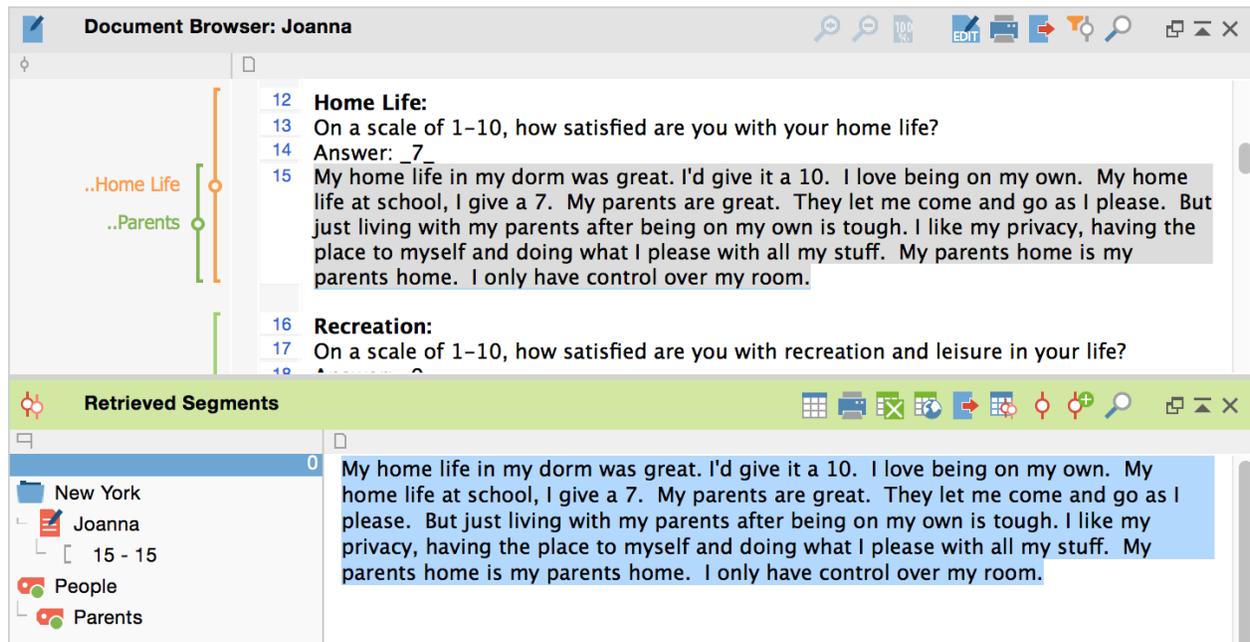
15.8 Jumping from Retrieved Segment to the Original Document

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

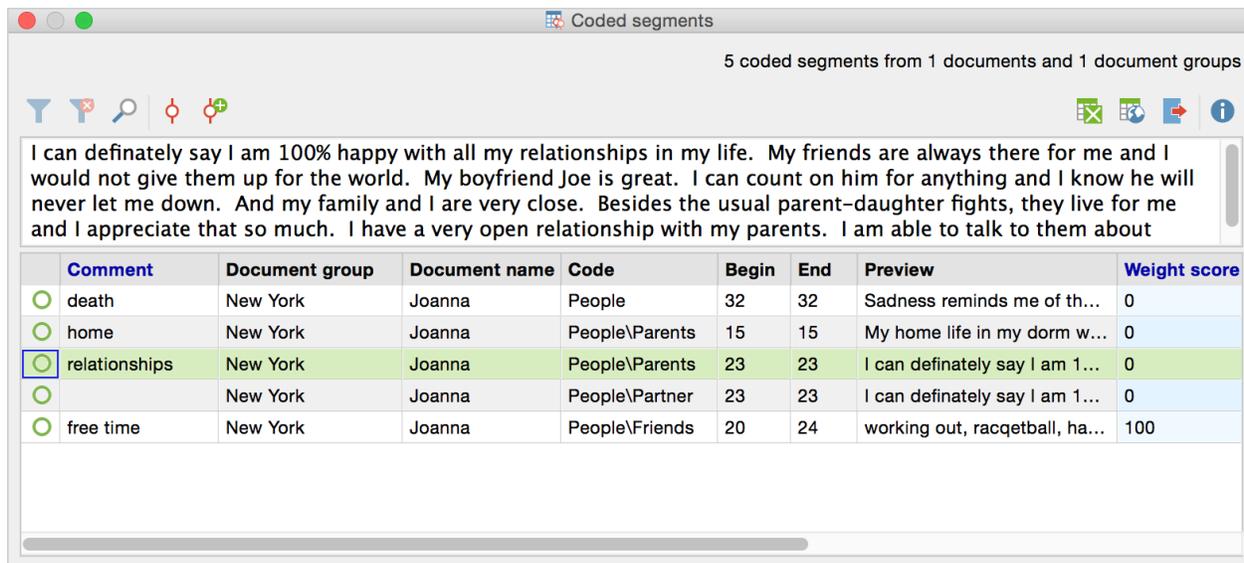
15.9 “Overview of retrieved segments”

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-section window in the “Overview of retrieved segments”

Tip: It is possible to code text segments that are displayed in the upper part of the “Overview of coded segments” window. Highlight a text passage in this area with the mouse and drag it while you hold down the left mouse button to one code in the “Code System” window. A new coding stripe in the “Document Browser” window will indicate the newly created coded segment – as long as the window is visible and there no filter for coding stripes is active.

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 the "Overview of Retrieved Segments"

The following functions, among others, can be accessed from the toolbar:

 **Code retrieved segments** – the selected coded segments (marked in green) 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 green) 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.

 **Show as Excel table** – opens a table in XLS/X format with the retrieved segments and associated information.

 **Show as HTML table** – A table in HTML format is created and displayed with the default browser. If nothing is selected, the entire table will be displayed. If individual rows are selected and highlighted in green, only these rows will be exported.

 **Export retrieved segments** – allows for export of the retrieved segments in RTF or XLS/X format, including preceding source data.

Calling up the "Overview of retrieved segments"

Which retrieved segments are included in the overview depends on the context of the overview:

All coded segments from the project:

- Menu **Code > Overview of coded segments**, or
- Right-click on the stem of the "Document System" or "Code System" and select **Overview of coded segments**

Coded segments that currently appear in the "Retrieved Segments" window:

- Click on the **Overview of retrieved segments** button  in the "Retrieved Segments" toolbar

All coded segments of a code:

- Double-click on the expanded code, or
- Right-click on the expanded code and select **Overview of coded segments**

All retrieved segments of a code and its subcodes:

- Double-click on the collapsed code, or
- Right-click on the collapsed code and select **Overview of coded segments**

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 significance:

- **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 63 characters of the encoded text (when exporting the output contains the entire coded segment)
- **Area** – number of characters in the coded segment (minimal variation may occur between Windows and Mac)
- **Coverage** – number of characters in the coded segment in relation to the number of characters of the text as a whole (minimal variation may occur between Windows and Mac)

PDF Documents

- **Start** – for text coding, the position of the character at which the coded segment begins. For image coding, the lower left corner of the segment.
- **End** – for text coding, the position of the character at which the coded segment ends. For image coding, the upper right corner of the segment.
- **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)
- **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

Image Documents

- **Start** – the upper left corner, at which the coded segment begins
- **End** – the lower right corner, at which the coded segment ends



- **Preview** – always displayed as <IMAGE> (coded image segment will be displayed upon exportation)
- **Area** – coded area, in pixel x pixel
- **Coverage** – coded area in relation to the total area of the image

Table Documents

- **Start** – cell in which the coded segment is found
- **End** – identical to "Start," as coded segments are always in the same cell
- **Preview** – displays the first 63 characters of coded text (when exported, will include the entire coded segment)
- **Area** – Number of characters in the coded segment
- **Coverage** – for text coding, the position of the character at which the coded segment begins. For image coding, the lower left corner of the segment.

Audio and Video Files

- **Start** – the time at which the coded segment begins
- **End** – the time at which the coded segment ends
- **Preview** – always displayed as <AUDIO> or <VIDEO> (image of beginning of clip will be displayed upon exportation)
- **Area** – length of coded media clips
- **Coverage** – length of coded media clips in relation to total length of the file

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.

15.10 Table view of the "Retrieved Segments"

The "Retrieved Segments" can be displayed in a table view. Click the **Change to table view**  icon 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."

Retrieved Segments								
	Comment	Docum...	Document name	Code	Begin	End	Weight s...	Preview
<input type="radio"/>	home	New York	Joanna	Pe...				My home life in my ...
<input type="radio"/>	free time	New York	Joanna	Pe...				working out, racqetb.
<input type="radio"/>	relationships	New York	Joanna	People\Parents	23	23	0	I can definately say I..
<input type="radio"/>		New York	Joanna	People\Partner	23	23	0	I can definately say I..
<input type="radio"/>	death	New York	Joanna	People	32	32	0	Sadness reminds m...

Switch to table view

The "Retrieved Segments" in table view

15.11 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 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 option for selecting your printer. In this window, you can also select the print layout and choose to print out only certain pages.

Document: New York\Joanna
 Weight: 0
 Position: 20 - 22
 Code: People\Friends

Please list recreation\leisure events you participate in..
 working out, racqetball, hanging out with my friends
 I am satisfied with what I do with my free time but I wish I had more free time to spend with myself or friends. The only thing I wish I still did was be a part of a team. I used to be the captain of my high school volleyball team. I love being on a team but I don't have the time to commit to something else right now. I can bearily find time to myself.

Document: New York\Joanna
 Weight: 0
 Position: 24 - 24
 Code: People\Parents

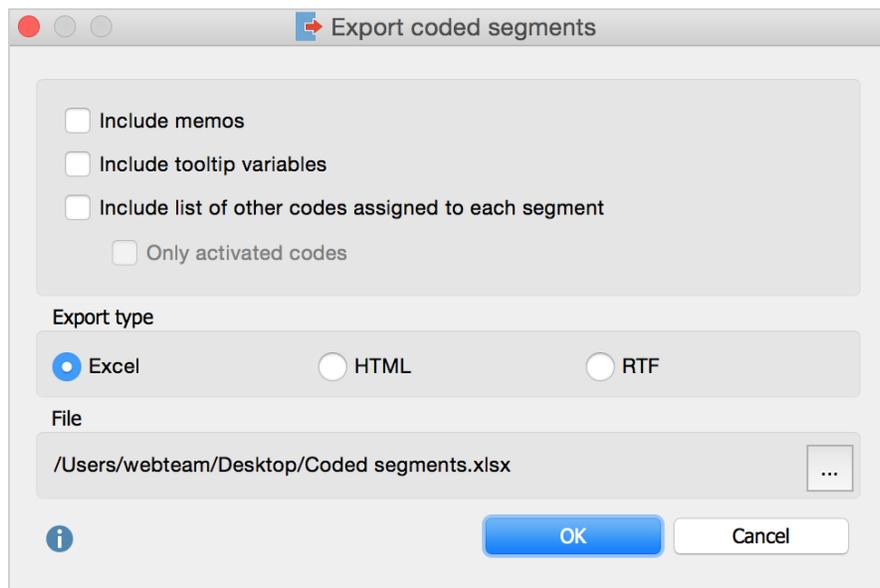
I can definately say I am 100% happy with all my relationships in my life. My friends are always there for me and I would not give them up for the world. My boyfriend Joe is great. I can count on him for anything and I know he will never let me down. And my family and I are very close. Besides the usual parent-daughter fights, they live for me and I appreciate that so much. I have a very open relationship with my parents. I am able to talk to them about anything and I know I wil always get good advice out of them..they always want the best for me.

Printout of the "Retrieved Segments" window



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 **Project > Export > Retrieved Segments** from the main 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. The following options menu will appear:



Options for the export of retrieved segments

The following options are available:

Include memos – When this option is selected, all memos that appear in the “Retrieved Segments” window will be exported. For export in XLS/X or HTML format, memos will be attached to a coded segment in a cell.

Include tooltip variables – When this option is selected, all tooltip variables that are selected in the „List of document variables“ will be exported. For export in XLS/X or HTML format, each variable will be assigned to its own column.

Include list of other codes assigned to each segment – The export file will include any additional codes that were assigned to each coded segment being exported. Overlap with any other code, including its weight, will be listed. If you select the additional option **Only activated codes**, the action will apply to activated codes only.

Select one of the three export formats (Excel, HTML or RTF) as well as the saving location. When you click **OK**, the export process will begin and the exported data will open in the appropriate program for the file type.

15.12 Coding “Retrieved Segments”

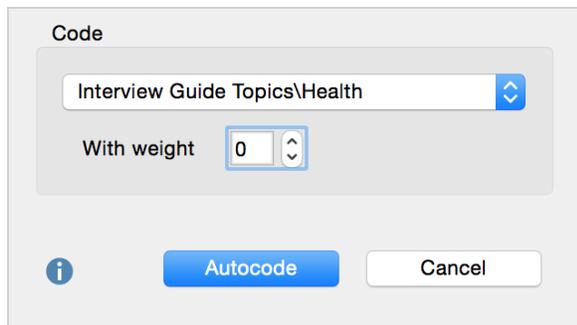
MAXQDA makes it possible for you to code some or all of your retrieved segments in the “Retrieved Segments” window. In this way, you can search and code quickly within specific segments that have been called up.

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 to code with hasn’t been created yet.

You will then see the following window:

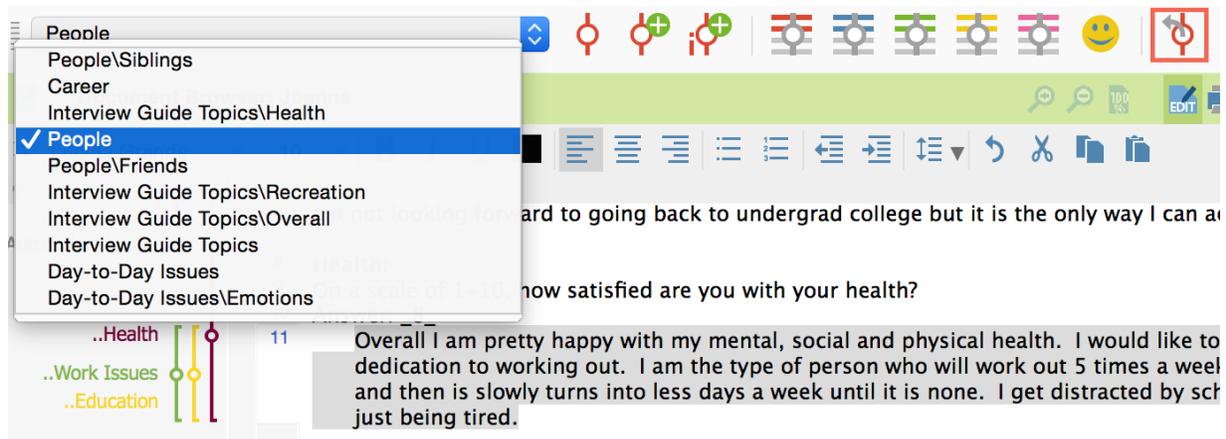


Autocoding the retrieved segments with a new code

In the dialog window, you can 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, you will need to close the dialog window and click on that code in the “Code System” in order to add it to the quick list. Now you can once again click the Code retrieved segments symbol, whereby the selected code will be assigned to all segments in the “Retrieved segments” window.

Note: If you encode retrieved segments with an existing code, existing encodings will not be changed. When you encode retrieved segments with a new code, in the case of overlapping coded segments, the outermost segment boundaries will be used.

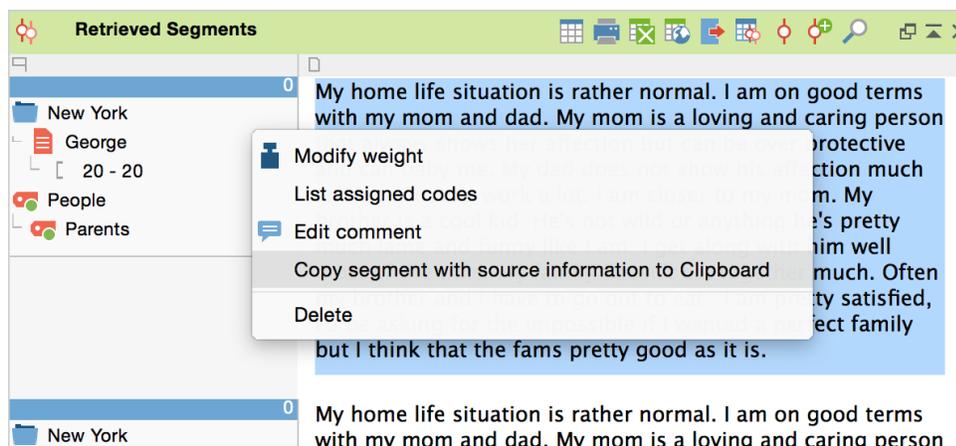
This action will be added to the list of coding actions in the **Undo coding** menu in the “Code” toolbar. When you open this list, you will see the most recent coding actions at the top with the number of segments coded in each action in parentheses after the code name. If you have coded many segments 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

15.13 Copying “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 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 clipboard. Now you can paste the citation into your word processing program by pressing **Ctrl+V** (Windows) or **cmd+V** (Mac). At the end of the citation, the document name from the “Document System,” as well as the paragraph, will automatically be inserted.



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 slowly turns into less days a week until it is none. I get distracted by school work, my job or just being tired. (New York\Joanna: 12 - 12)

Citation with source information in word processing program

16 Complex Retrievals

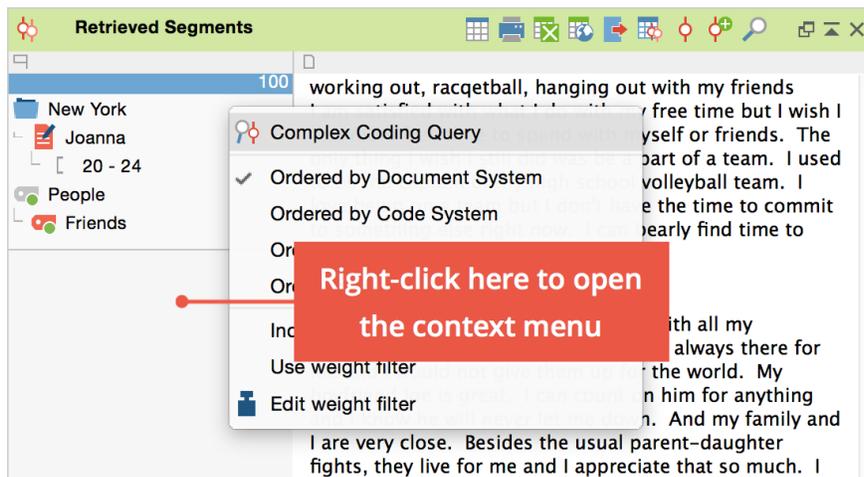
16.1 Logical Combinations of Codes

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 analyze the combination of activated codes in different ways, by taking into account the different groupings and positions of coded segments. In this section, we will discuss the complex combinations modes, of which MAXQDA has many to offer.

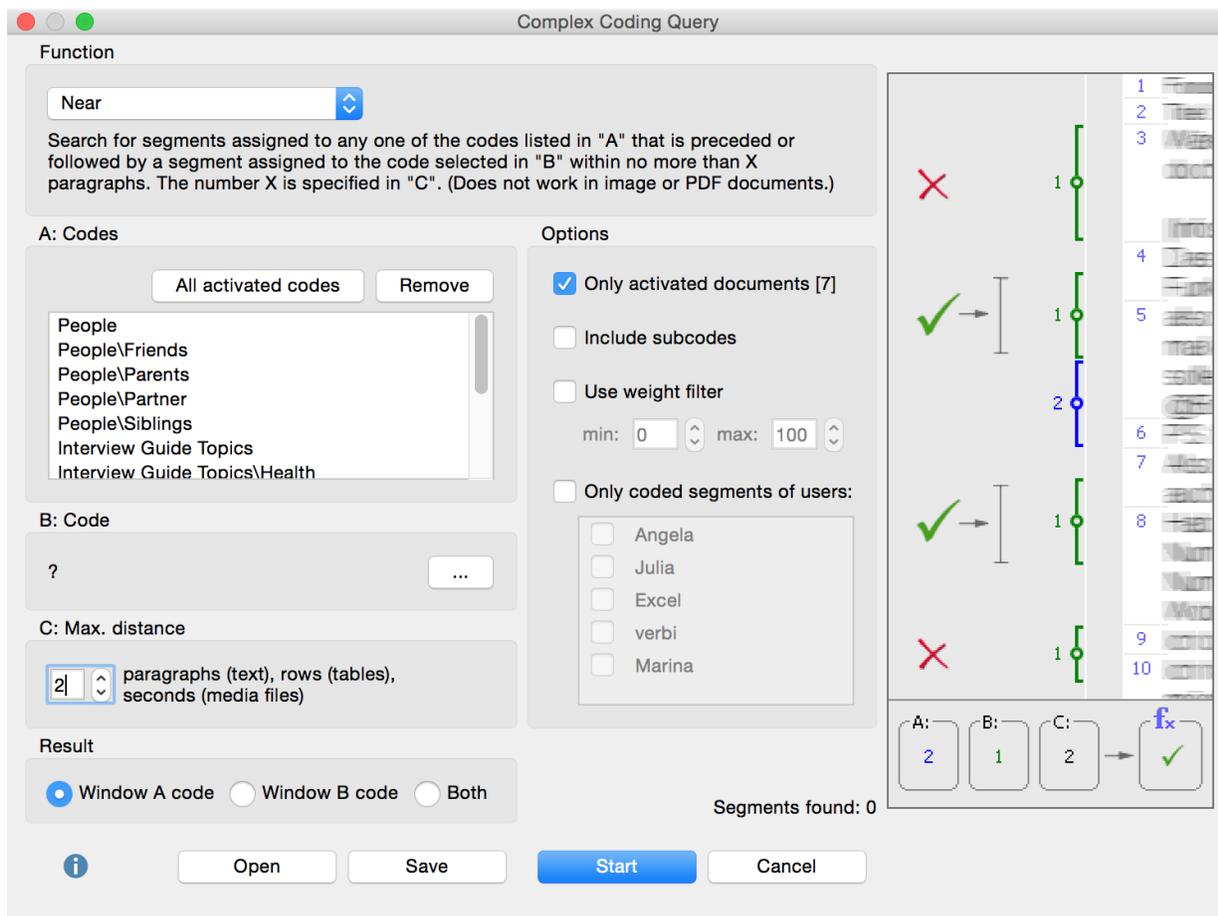
To perform a complex retrieval you can call up the Complex Coding Query:

- Select **Complex Coding Query** from the **Analysis** drop-down menu,
- 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 info boxes appear and choose **Complex Coding Query** from the context menu.



Access to the Complex Coding Query in the context menu of the "Retrieved Segments" window

The following dialog window will open:



Complex Coding query window

The dialog window has the following aspects:

- The **Function** field allows you to choose the analysis function.
- 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).

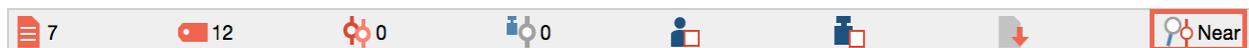
The “Result” window at the bottom shows how many segments would be pulled up if the retrieval were carried out with the current settings in Windows A, B, and C. Under this window is a description of the retrieval function that is currently selected, and on the right side, there is a visualization of what that function does.

The retrieval begins when you click on the **Start** button.

The following table gives you an overview of the various functions:

Name	Description
Intersection (“small picture”)	Retrieve only the part segments that have all of the codes listed in "A" assigned to them.
Intersection (Set)	Retrieve only the part segments that have at least X of the codes listed in "A" assigned to them (the number X is specified in "C").
Overlapping (“big picture”)	Retrieve the full segments where at least one part has all the codes listed in "A" assigned to it.
Only one code	Search for segments where only one of the codes listed in "A" is assigned (and none of the other codes listed in "A").
Only this code	Search for segments where the code selected in "B" is assigned, but none of the codes listed in "A" are assigned.
If inside	Search for segments assigned to any one of the codes listed in "A" that are also completely surrounded by a segment assigned to the code selected in "B".
If outside	Search for segments assigned to any one of the codes listed in "A" that has no overlap or intersection with a segment assigned to the code selected in "B".
Followed by	Search for segments assigned to any one of the codes listed in "A" that is followed by a segment assigned to the code selected in "B" within no more than X paragraphs. The number X is specified in "C". (Does not work in image or PDF documents.)
Near	Search for segments assigned to any one of the codes listed in "A" that is preceded or followed by a segment assigned to the code selected in "B" within no more than X paragraphs. The number X is specified in "C". (Does not work in image or PDF documents.)

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

Note: 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.

16.2 Detailed Information about Complex Retrieval Functions

Intersection (“small picture”)

Definition: Retrieve only the part segments that have all of the codes listed in "A" assigned to them.

How it works:

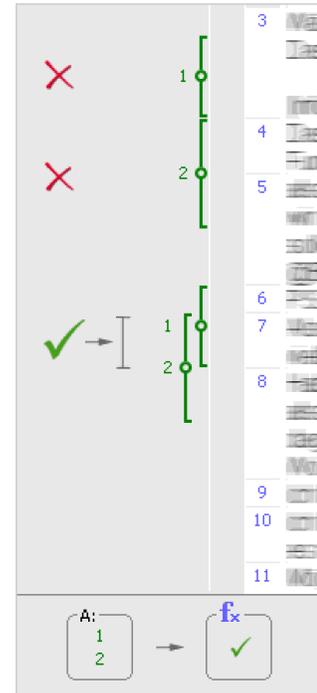
Activate documents and/or document groups that you want to include. Activate the codes in the “Code System” that you want and then click on **All activated codes** in the text retrieval dialog window to insert them in Window A.

Tip: All codes in Window A must be attached to a 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 at the bottom of the screen.

Example:





Intersection (Set)

Definition: Retrieve only the part segments that have at least X of the codes listed in "A" assigned to them (the number X is specified in "C").

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.

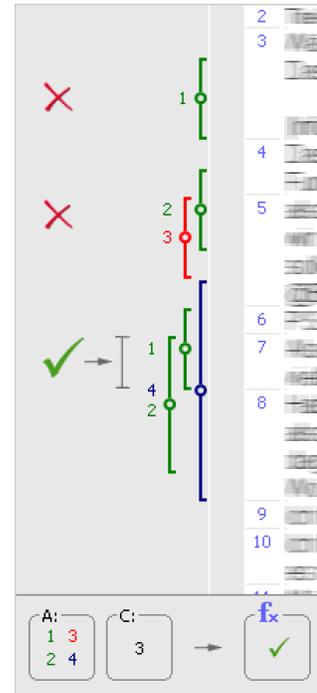
Result:

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.



Overlapping (“big picture”)

Definition: Retrieve the full segments where at least one part has all the codes listed in "A" assigned to it.

How it works:

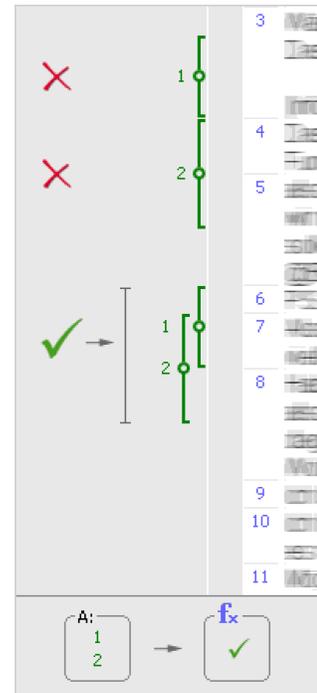
Activate documents or document groups you want included in the retrieval. Activate the codes to be included in the “Code System.” Click on the button **All activated codes** to have the activated codes inserted in Window A.

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 subcodes are tested for overlap.

Example:





Only One Code

Definition: Search for segments where only one of the codes listed in "A" is assigned (and none of the other codes listed in "A").

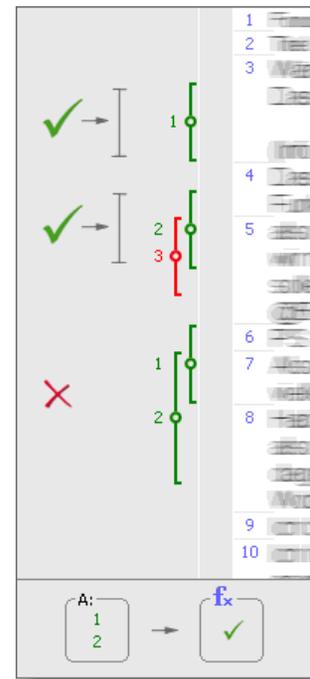
Note: Think carefully before using this function as it could pull up a very large number of segments.

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.

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.



Only This Code

Definition: Search for segments where the code selected in "B" is assigned, but none of the codes listed in "A" are assigned.

This function is very similar to the "Only One Code" function, but it targets only one selected code. The target code is selected in Window B. The other codes are selected as usual in Window A.

How it works:

1. Activate documents or document groups you want included in the retrieval.
2. 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.
3. 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.





If Outside

Definition: Search for segments assigned to any one of the codes listed in "A" that has no overlap or intersection with a segment assigned to the code selected in "B".

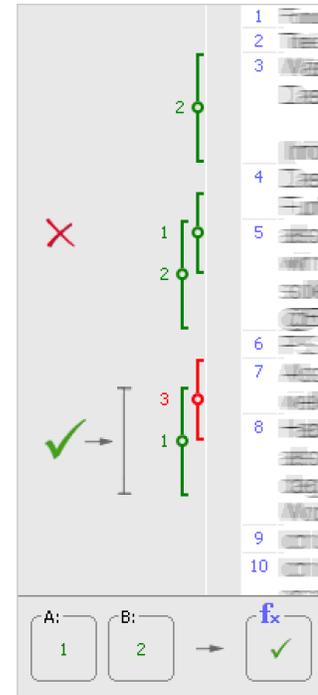
How it works:

1. Activate documents or document groups you want included in the retrieval.
2. 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.
3. 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.

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.



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).

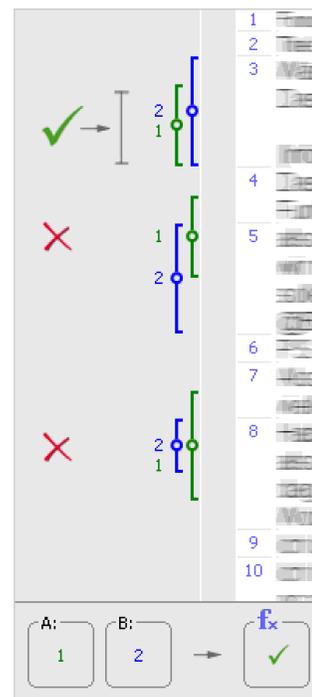
How it works:

1. 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.
2. 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.
3. 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.

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.





Followed By

Definition: Search for segments assigned to any one of the codes listed in "A" that is followed by a segment assigned to the code selected in "B" within no more than X paragraphs. The number X is specified in "C". (Does not work in image or PDF documents.)

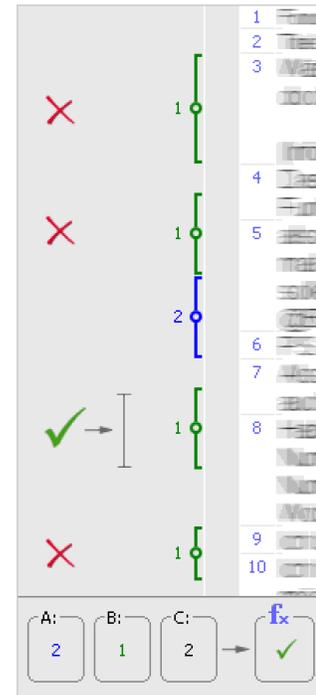
How it works:

1. 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.
2. 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.
3. 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.
4. Finally, you can choose what you want to view as the results in the "Retrieved Segments" 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.



Near

Definition: Search for segments assigned to any one of the codes listed in "A" that is preceded or followed by a segment assigned to the code selected in "B" within no more than X paragraphs. The number X is specified in "C". (Does not work in image or PDF documents.)

How it works:

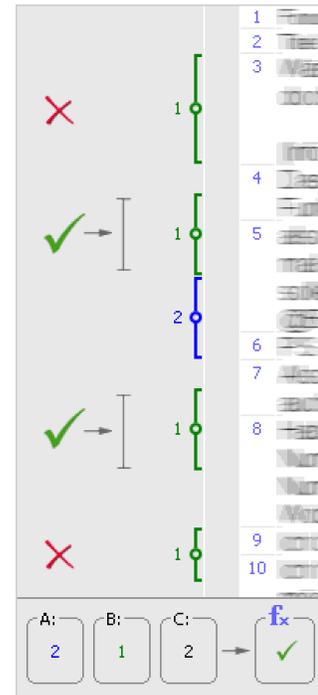
1. Activate documents or document groups you want included in the retrieval. Activate the codes to be inserted in Window A in the "Code System." Click on the button **All activated codes** to have the activated codes inserted in Window A. These are the codes that will be looked for.
2. Pick the codes 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.
3. In Window C, you can insert the maximum number of paragraphs away the Window A code can be from the Window B code.
4. Finally, you can choose what you want to view as the results in the "Retrieved Segments" 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.



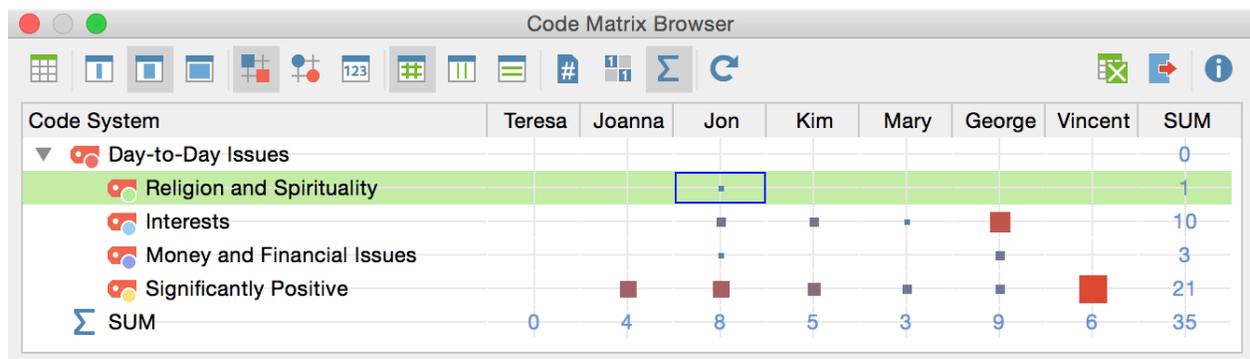


17 Visual Tools

17.1 Code Matrix Browser: Visualizing Codes per Document

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 is constructed as follows: Documents are listed in the columns while codes are listed in the rows. The symbols at the conjunction points represent the number of coded segments that are coded with a particular code. The larger the symbol, the more coded segments are assigned to the code in question.



The Code Matrix Browser

The Code Matrix Browser can be opened in the following ways:

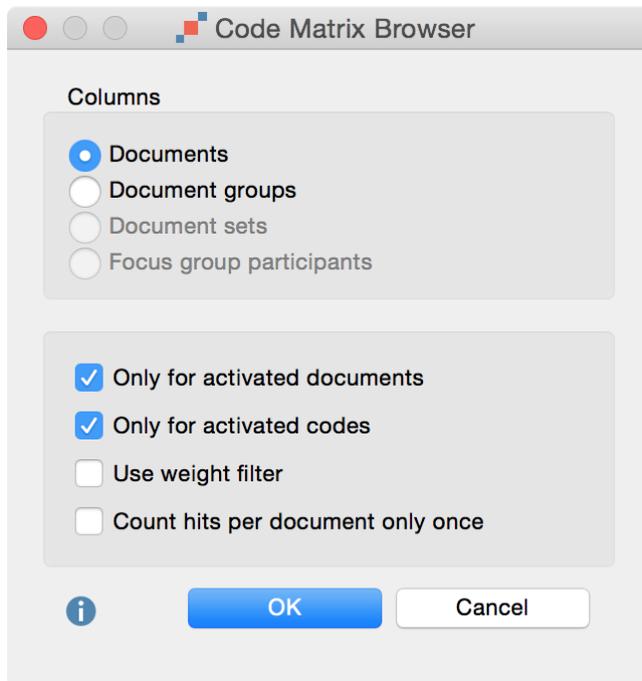
- Selecting **Code Matrix Browser** from the **Visual tools** drop-down menu,
- using the keyboard shortcut **Ctrl+Alt+M** (Windows) or **cmd+Alt+M** (Mac)
- clicking on the **CMB symbol** in the “Visual tools” toolbar.



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 window

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.

Focus Group Participants – Focus group participants are displayed in the columns.

Further options allow you to restrict and adjust the display:

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 focus group participants – Only activated focus group participants will be displayed in the columns. This option is visible only when the corresponding option above is selected.

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.

Count hits per document only once – This option will be displayed only if a code occurs infrequently within a document. The unit of analysis is therefore not the individual segment, but rather the full document.



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:

-  **Quote Matrix** – Displays coded segments as an Excel file
-  **Names, columns: none/short/full** – Determines display of document names in column headers.
-  **Calculation of symbol size refers to all coded segments.**
-  **Calculation of symbol size refers to the column.**
-  **Calculation of symbol size refers to the row.**
-  **Display nodes as squares.**
-  **Display nodes as circles.**
-  **Display nodes as values.**
-  **Count hits per document only once** – The Code Matrix Browser display will be based not on the number of coded segments but rather on the full document, meaning it will display only whether the code occurs in the document or not. For collapsed subcodes, the code frequency of the subcodes will be aggregated.
-  **Binarize view** – Regardless of how many coded segments are present in a cell, this function displays only whether a coded segment is present or not; the symbol size is therefore unified. Even when a collapsed subcode with multiple encodings is present, only one will be counted.
-  **Sum** – displays the sum of rows and columns.
-  **Refresh** – updates display via the Refresh function.
-  **Open as Excel table** – Displays the matrix with the code frequencies of the Code Matrix Browser in Excel. The columns and rows are reversed to allow an easier import into SPSS.
-  **Export** – Exports the displayed matrix as values, meaning the number of coded segments per code and per document, in Excel or HTML format. The columns and rows are reversed to allow an easier import into SPSS. Export as a graphic file (Vector or Bitmap) is also possible.

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.

Tip: The sequence in which the documents are displayed is determined by their sequence in the Document System. If you wish to change the order of the documents, you must do so in the Document System.

When you move the mouse cursor over a cluster, a screen tip appears:

Document: Mary
Code: Education
Coded segments: 5

Tooltip in the Code Matrix Browser

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. For focus group participants, the names of the participants will be displayed in the columns in the place of the document names.

Tip: The columns can be easily moved with the mouse. In this way, you can easily compare the coded segments of two different documents or focus group participants.

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 or Mac Finder. 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.

How is the Symbol Size Determined?

MAXQDA determines the minimum and maximum code frequency of all nodes shown and then divides the difference between these two values in seven equal value ranges. The smallest value range is assigned the smallest symbol and the largest value range, the largest. By collapsing or revealing codes, you may change the smallest or largest value, and the overall display therefore may change as well. When all the numerical values are identical, a mid-size square will be displayed.

If the **Calculation of symbol size refers to the column/row** option is selected, this mechanism is applied individually to the column or row.

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 and code are 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 **Export**  symbol in the toolbar allows you to export the Code Matrix Browser as currently displayed. This file can later be inserted into a word processing program or Powerpoint slide.

Tip: Click on the camera icon  to copy the actual view into the clipboard. Now you can open Word, PowerPoint, or other programs and paste the image into it by choosing **Ctrl+V** (Win) or **cmd+V** (Mac).

17.2 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+Alt+R** (Windows) or **cmd+Alt+R** (Mac)
- by clicking on the **CRB symbol** in the “Visual tools” toolbar.



Symbol in the “Visual tools” toolbar for opening the CRB

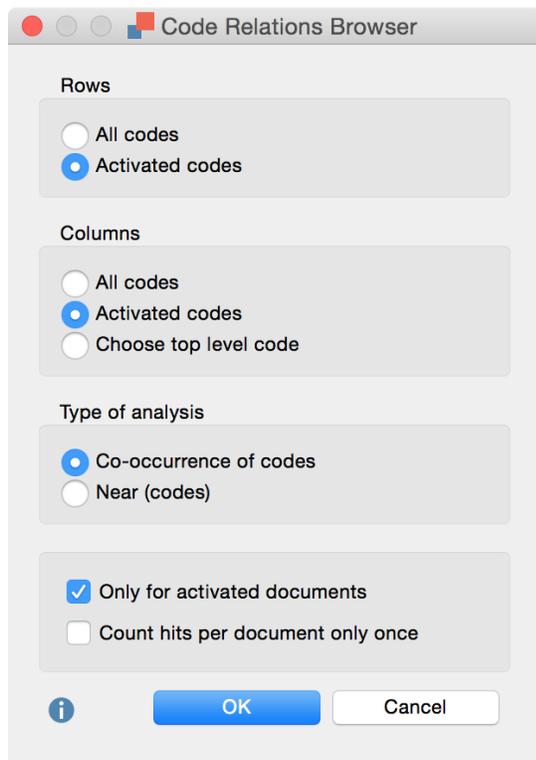
The Code Relations Browser looks like this:



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 can analyze how many encodings exist in which two codes are present at a defined distance from one another. After clicking **OK**, you can define the desired distance.



Max. distance paragraphs (text), rows (tables), seconds (media files)

OK Cancel

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.

The option **Only for activated documents** will make the Code Relations Browser only look for relations in the activated documents.

Count hits per document only once – The Code Relations Browser counts the number of documents in which an overlap or proximity (near) of codes exists. It does not matter how many times the overlap or proximity occurs within a document.

Code Relations Browser toolbar

At the top of the screen, you will find the toolbar with the following functions:

-  **Quote Matrix** – Displays coded segments as an Excel file
-  **Names, columns: none/short/full** – Determines display of document names in column headers.
-  **Display nodes as squares.**
-  **Display nodes as circles.**
-  **Display nodes as values.**
-  **Co-occurrence of codes** – Switches to an “overlap” type analysis.
-  **Near (codes)** – Switches to a “near” type analysis and displays a dialog window in which the maximum distance can be defined. (In table documents only the nearness of coded segments in the same column will be evaluated. Coded image segment will be ignored generally.)
-  **Count hits per document only once** – The Code Relations Browser display will be based not on the number of coded segments but rather on the full document, meaning it will display only whether the code occurs in the document or not. For collapsed subcodes, the code frequency of the subcodes will be aggregated.
-  **Binarize view** – Regardless of how many coded segments are present in a cell, this function displays only whether a coded segment is present or not; the symbol size is therefore unified. Even when a collapsed subcode with multiple encodings is present, only one will be counted.
-  **Sum** – displays the sum of rows and columns.
-  **Refresh** – updates display via the Refresh function.

 **Open as Excel table** – Displays the matrix with the code frequencies of the CRB in Excel. The columns and rows are reversed to allow an easier import into SPSS.

 **Export** – Exports the displayed matrix as values, meaning the number of coded segments per code and per document, in Excel or HTML format. The columns and rows are reversed to allow an easier import into SPSS. Export as a graphic file (Vector or Bitmap) is also possible.

What is actually shown in the Code Relations Browser?

Each symbol in the matrix represents the number of intersections of the two codes. The larger 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 **Count hits per document only once** icon in the toolbar, the symbols represent the number of documents that have at least one instance of an intersection or proximity 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 node 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.

Note: If you are in mode „Near“ and double click on a node, that has collapsed codes, the collapsed subcodes will be expanded automatically and only the higher code will be evaluated, not the previously collapsed codes.

Exporting the CRB as an Image File

The Export  symbol allows you to save the current CRB display as a file, which you can then insert easily into a word processing file or Powerpoint slide.

Tip: Click on the camera icon  to copy the actual view into the clipboard. Now you can open Word, PowerPoint, or other programs and paste the image into it by choosing **Ctrl+V** (Win) or **cmd+V** (Mac).

17.3 Document Comparison Chart: A Visual Comparison of Coded Text

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

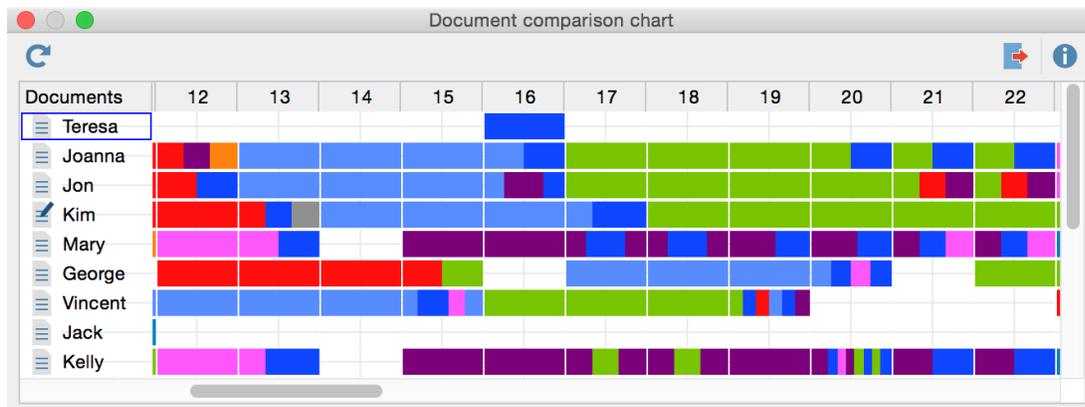
If several codes with different colors appear in the same paragraph, the space available will be shared between the codes. Generally, the space is fixed to 50 pixels. These pixels will be allocated according to the size of the coded segments. If exactly the same segment is coded with a green and a red 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 double-clicking on the symbol.

Exporting the Document Comparison Chart as an Image File

The Export  symbol allows you to export the current display of the Document Comparison Chart so you can later insert it into a word processing file or Powerpoint slide.

Tip: Click on the camera icon  to copy the actual view into the clipboard. Now you can open Word, PowerPoint, or other programs and paste the image into it by choosing **Ctrl+V** (Win) or **cmd+V** (Mac).

17.4 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 for the displayed document in the “Document Browser” window...

- by selecting **Document Portrait** from the **Visual tools** drop-down menu,
- by clicking on the appropriate **symbol** in the **Visual tools** toolbar.



Symbol in the “Visual tools” toolbar for calling up the Document Portrait

Alternatively, you can right-click on a document and select **Document Portrait** in the context menu that appears.

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.

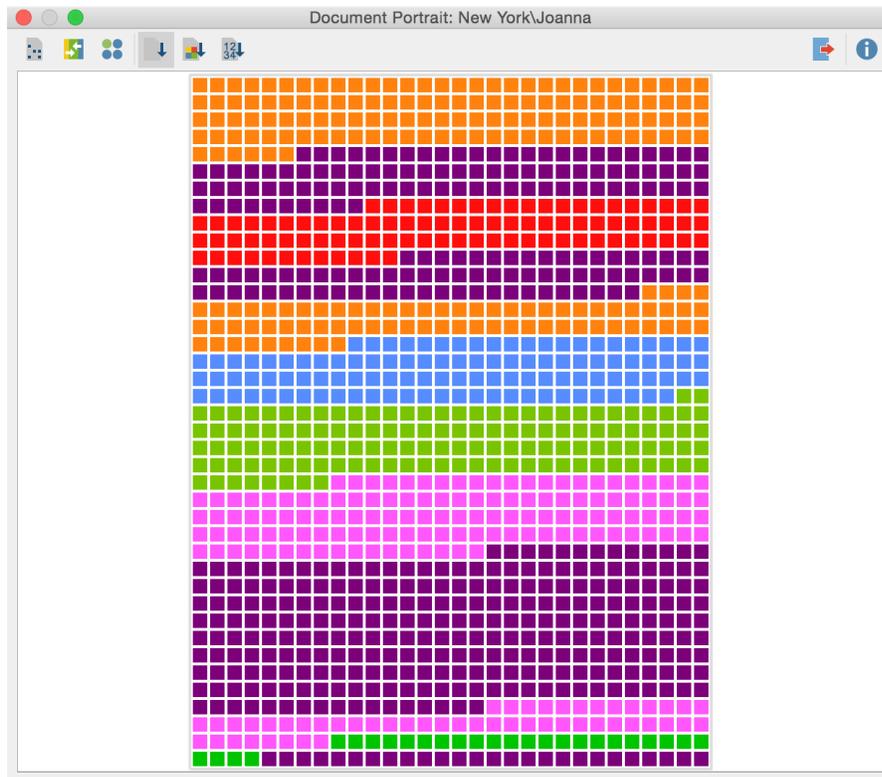
What Does a Document Portrait Display?

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 visualize 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 icon lets you switch the symbols in the visualization back and forth between squares and circles.

Sorted by document

The sorting of the coded segments visualized in the Document Portrait is determined by their occurrence in the document.

Sorted by color

The coded segments are sorted by colors, same colors are grouped.



Sorted by color frequency

In this special display option the portrait will be “tidied up”: all symbols with same colors are stacked like in a bar chart and the bar with the most tiles is placed left. Only the most frequent 20 colors will be visualized.

Interactivity

The square or circle symbols in the Document Portrait are also directly connected to the original data, which means you can 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.) If you right click on a symbol you will find the option Retrieve coded segments with this color which will list all coded segments with the chosen color in the “Retrieved Segments” window.

Exporting the Document Portrait as an Image File

The Export  symbol allows you to export the current display of the Document Portrait so you can later insert it into a word processing file or Powerpoint slide.

Tip: Click on the camera icon  to copy the actual view into the clipboard. Now you can open Word, PowerPoint, or other programs and paste the image into it by choosing **Ctrl+V** (Win) or **cmd+V** (Mac).

17.5 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 Codeline visualization is available for text and PDF documents and also for videos. The picture is quite similar to that of a score of a piece of music. For a text, the x-axis displays its paragraphs, starting with §1 and ending with the last § of the particular text. 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 a visual overview of a document, so for the phases of an interview you can quickly identify which codes appear and co-occur.

	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 text or PDF 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

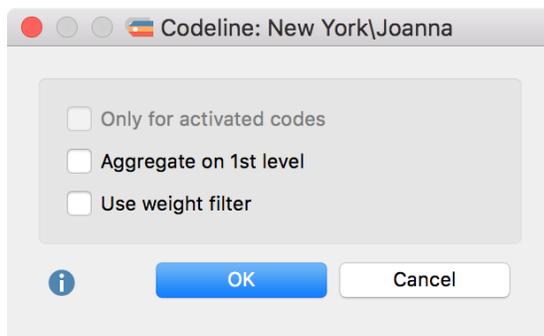
Codeline Options

When you call up the Codeline, MAXQDA offers the following options:

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.” If you have activated a subcode, also its parents will be integrated in the visualization.

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.

Use weight filter – if you select this option, MAXQDA will open another dialog after clicking OK, in which you can set a range for the coding weight. Only those segments, that fit into this range will be displayed in the Codeline.



Options for the Codeline visualization

Codeline Display

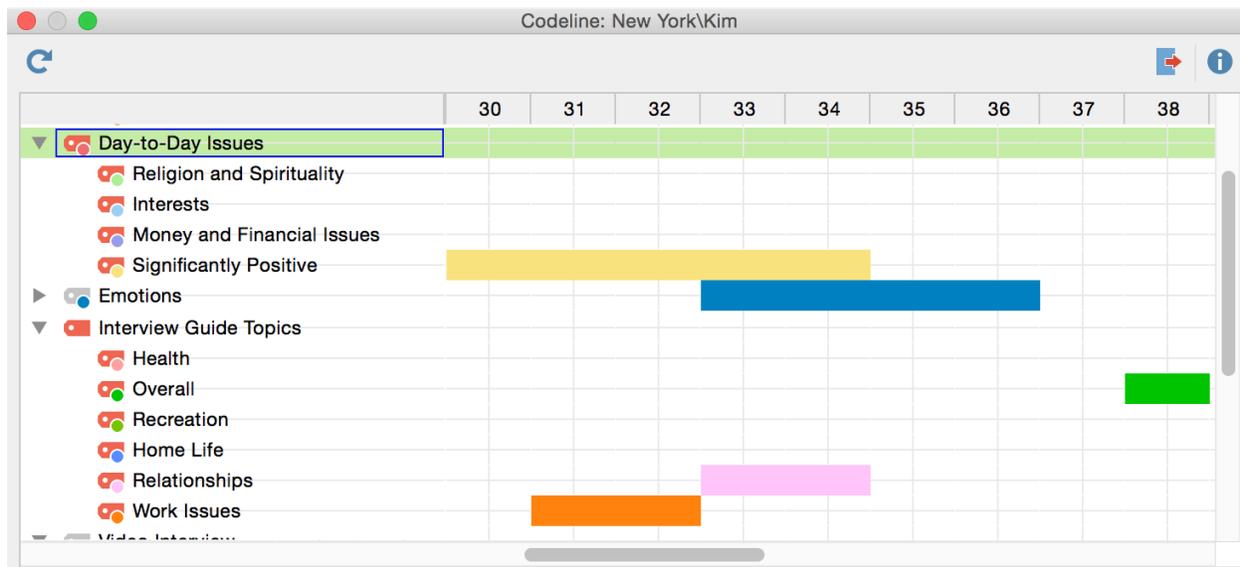
Unlike the Document Portrait, the Codeline tool can be used even if you have not associated meaningful colors to your codes. The Codeline graphics display the color, but if you have not selected colors, only green symbols will be displayed. The function of Codeline is to show where in a document the 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 for a text 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.

Codeline for Table and PDF Documents and for Audio and Video files

The Codeline function is available for all document types that MAXQDA supports, with the exception of images. Depending on the document type, different units will be used for the columns:

Text	Paragraphs
Table	Rows
PDF	Pages
Audio- und Videodatei	Seconds or minutes, depending on the length of the document and the place available

Display Options

Above the Codeline you will see a toolbar, which offers several options for the display:

 **Unit: paragraph** – if you select this option all paragraphs will be displayed with the same width, independent from their content. Furthermore, the whole paragraph width will be filled with the color of the code, no matter how large or small the coded segments within this paragraphs are.

If you deselect this option the Codeline will consider how many characters have been coded with a code and only those parts will be colored, not the whole paragraph. The column headers will display the number of the paragraphs, but the column width will be proportional to the length of the paragraph.

The option works identically for the other document types: selecting the option Unit: Row / Page / Second / Minute all units will be displayed with the same width and just a single coded segment in a unit will led to unit width that is filled completely.

 **Fit to window width** – selecting this option will „compress“ the Codeline into the horizontal space of the window. This is very helpful for any publication in which you want to include an image of the whole Codeline, but in which the space is usually limited to a page size. The proportions of the visualized coded segments will stay the same, only very short coded segments get a special treatment: they will be reduced to a minimum of a thin vertical line only, but will not be excluded from the view.

You can use the slider next to the icons to adjust the column width.

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 position. Double-clicking on the **symbol** highlights the appropriate segment(s) in the “Document Browser” or “Multimedia Browser”.

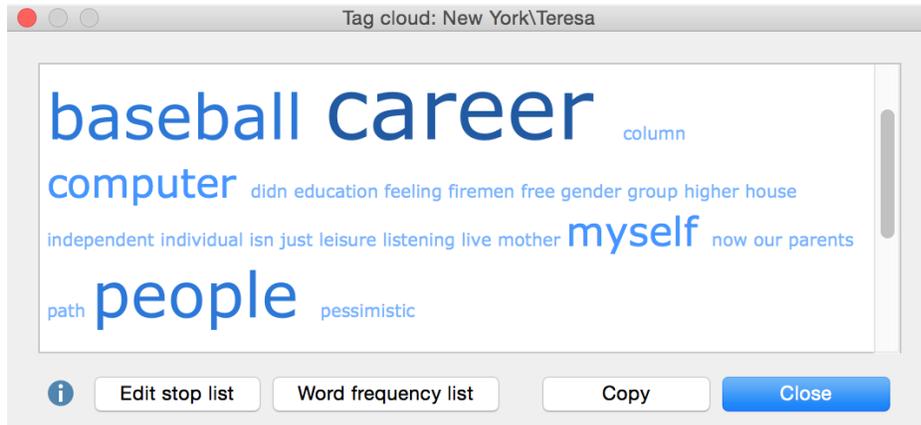
Exporting Codeline as an Image File

The Export  symbol allows you to export the current display of the Codeline so you can later insert it into a word processing file or PowerPoint slide.

Tip: Click on the camera icon  to copy the actual view into the clipboard. Now you can open Word, PowerPoint, or other programs and paste the image into it by choosing **Ctrl+V** (Win) or **cmd+V** (Mac).

17.6 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.

Tip: The tag cloud is interactive. Click on a word to list all origins.

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 or cmd 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 of all the words that are currently in the Tag cloud of the current project. You can here add or delete words as well, although the double-clicking option described above is considerably easier.

Tip: Users of products “MAXQDA Plus” or “MAXQDA Analytics Pro” can manage the stop list via **MAXDictio > Stop list** and interchange entries from different stop lists very easily.

If you select or deselect the option **Case sensitivity** the tag cloud will be refreshed immediately.

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.

Tag cloud: Word frequency

In 1 documents (766 words total) 547 Words (TTR = 0,7141)

Word	Word length	Frequency	%
relationship	12	6	0,78
career	6	5	0,65
baseball	8	4	0,52
if			0,52
Life			0,52
never			0,52

Context menu for 'if':

- Add to dictionary
- Add to stop list
- Search results

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.



18 MAXMaps

18.1 What Does MAXMaps Do?

MAXMaps offers a new perspective on your data and the connections within it. The primary task of MAXMaps is to provide a graphical representation of the different elements within a MAXQDA project. These “objects” can be inserted into the MAXMaps drawing pads, and connections can be made in order to visualize a complex graph of relationships. MAXMaps also allows you to design graphical models or networks that are completely independent of MAXQDA’s data. That’s why MAXMaps is a universal graphics software tool that is not only restricted to applications in qualitative research within the social sciences. All elements of MAXQDA, e.g. codes, memos, coded segments, and documents, may be imported into a map. In addition, MAXMaps also allows you to insert so-called free elements (text, pictures, and graphics) that can be chosen by the user.

MAXMaps can be used for different purposes. Maps can help to explore and organize data. They allow you to develop your ideas and to communicate them to your research team. Maps can also be a valuable tool for scientific explanation and can help to visualize complex relationships and theories. For instance, you can create tables and worksheets to gain a better perspective of the different elements within a project. MAXMaps can also be used for presentations and lectures. The different layers of a map may be displayed in arbitrary order; thus, a variety of different options for designing presentations are available.

With MAXMaps, it is possible to display:

- The relationships between different codes and categories.
- An overview of different facts and phenomena within the research field.
- The different memos belonging to a document or a group of documents.
- The context or important facts of the research, e.g. photographs of locations or persons.
- A graphical overview of the research methods used.
- A research timeline.
- The research design and characteristics of the sample.

MAXMaps can also have different functions for researchers. You can, for instance, use MAXMaps to organize and manage your code system. Or you can link codes, text, and memos in a hypothetical order to then further test the relationships in a second step.

MAXMaps is not merely a graphics tool that works with icons and symbols, though. All the elements used in a map are interactive, meaning they are connected to the MAXQDA project. Simply switch to “sync mode” to establish a connection to the MAXQDA database. This makes an icon that symbolizes a text document not only a passive icon, but allows you to double-click on the icon to open the document in MAXQDA’s “Document Browser.” Then you can read and browse through the document. The same is true for memos. As soon as you click on the memo symbol, the memo appears

and can be read or even modified. In the case of symbols for coded segments, one click displays the segment, which allows you to examine and compare different segments of your map.

MAXMaps allows you to define connections and relationships as you choose. These connections may be hypothetical -- they do not even have to be consistent in logic while you are designing the maps because you are always free to make changes. As a result, you can “play” with different models and relationships. For example, a code “attitude” may appear as a condition of another code “behavior” in Map A and as the result of the code “behavior” in Map B. Constructing, testing, and modifying different models is an important aspect of analysis, thus making it counterproductive to be consistent with links and relationships right from the beginning.

MAXMaps not only allows you to define links and relationships, it also offers a way to make links and relationships that have already been implemented in your project visible. Examples are memos that have been assigned to a document: MAXMaps can import all the connected memos automatically. These memos are displayed as symbols and you can open and check them. The same is true for codes: If you have imported a code in your map, all the memos linked to this particular code can also be imported automatically. Moreover, you can search and insert all of the codes overlapping with a code on your map and automatically connect them to the code.

These features do not establish new links or new relationships, but they allow for completely new perspectives to your data. Connections that have likely been hidden in listings or tables can now come to the foreground. New views and relationships become visually apparent and much easier to understand. The connections between different elements of the diagram are not restricted to hierarchical relationships as with the “Code System” in MAXQDA. In MAXMaps, relationships can be represented in a more complex way, for instance as networks or any other type of model.

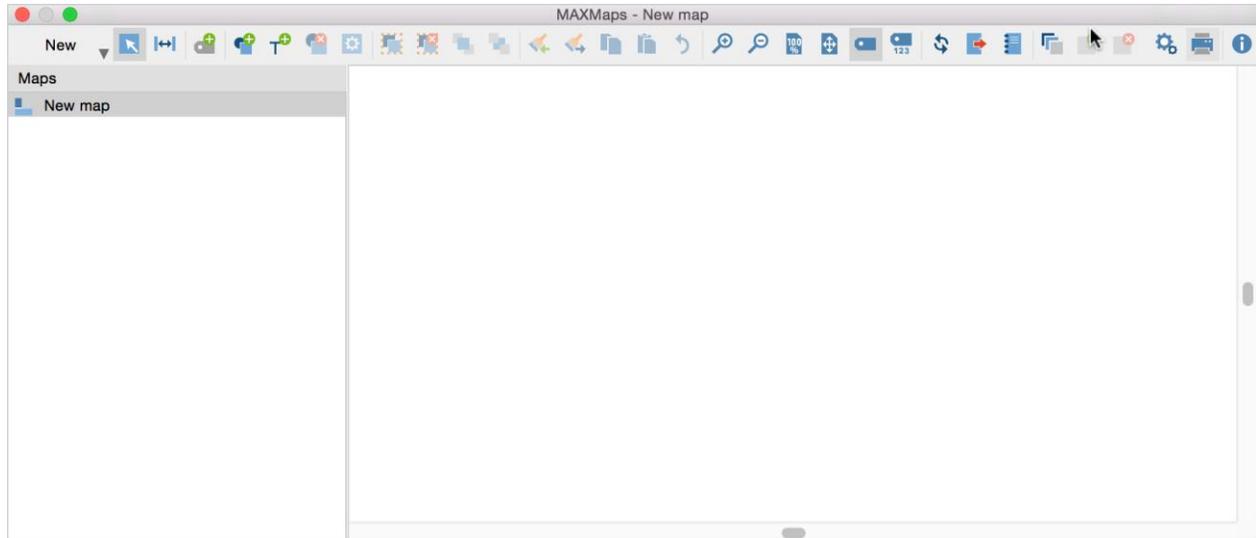
This visual method of data display is supported by the variety and flexibility that characterizes MAXMaps. All elements used in a map may be designed individually. Codes, memos, and texts are not always displayed with the same symbols and colors. You can select different symbols, colors, fonts, and sizes, or even import your own symbols unique to each element of your map. All labels, images, and symbols can be managed individually. You can also import your own photographs, icons, or clip art.

18.2 Getting Started – Creating a New Map

MAXMaps is available as an option in MAXQDA’s **Visual tools** drop-down menu. The MAXMaps window is divided into two parts. The left part contains a list of your maps. The first time you work with MAXMaps, the list will only contain one entry, which is called “New map.” The right part of the window is the place where you can create your map. Here, the different elements, such as codes or memos, are imported. You can also design your model by importing your project’s elements, linking them, and inserting labels, headings, graphics, and images.

To create a new empty map, select **New Map** from the **New** drop-down menu. A new empty map will then be created with the default name “New map.” You can modify the default name by **right-clicking on the name** and selecting **Rename** from the menu that appears.

You can create as many maps as desired. All maps are stored in the MAXQDA project file. They can also be saved in the form of JPEG or SVG, files which can then be inserted into text files. Maps are automatically stored in the MAXQDA project file when you close the MAXMap window; it is not necessary to use an explicit save command.



The MAXMaps screen

18.3 Arranging a Map

Working with MAXMaps: Two Work Modes

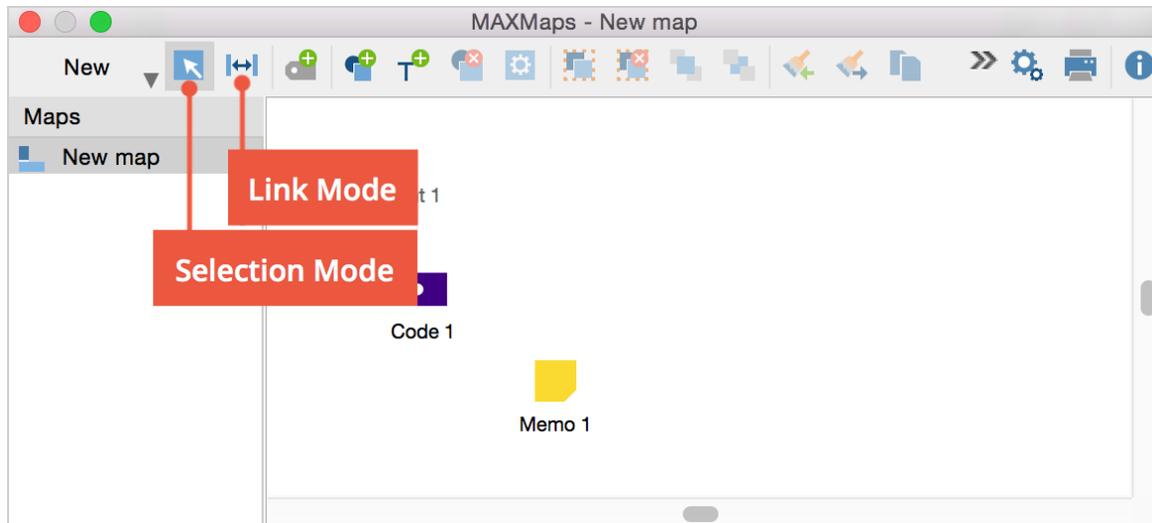
When working with MAXMaps, you can switch between two different work modes:

1. Selection Mode

This main work mode serves to select objects from MAXQDA and to insert them into the model. In this mode, objects can be freely shifted on the work surface.

2. Link Mode

The link mode makes it possible to interconnect different objects contained within the model. The connecting lines can even be treated like objects, i.e. properties can be modified in any manner desired. In the selection mode, the line type, color, label, and other characteristics of a connecting line can be modified.



How to select various modes from the drop-down menu

18.4 Objects in MAXMaps

A map consists of three different types of items:

- Standard objects.
- Free objects.
- Connecting objects.

Standard objects originate from MAXQDA, e.g. a code, a text, or a memo. They can only be inserted into a drawing pad once.

A text, a code, or a memo can only be included one time in a map.

Note: Modifications on standard objects have no effects on the MAXQDA project.

For instance, if you modify the name of a text imported from MAXQDA, the name in MAXQDA's "Document System" nevertheless remains the same. Objects removed from the drawing pad are not simultaneously removed from the MAXQDA project.

No matter how you arrange an object, connections to the MAXQDA database will always be preserved. This also means that a text that is represented only as a picture will open via double-click in MAXQDA's "Document Browser." Free objects are not connected with items of the current MAXQDA project. In this sense, they are independent of the analyzed data. Connecting objects are lines, which interconnect two objects.

Both standard and free objects consist of an object label and an object picture. Standard objects receive the appropriate icon from MAXQDA as a picture and the appropriate name from MAXQDA as a label.

For example, as with a MAXQDA document, the document name will be taken from the “Document System.” Connecting objects can likewise be provided with a label. You can also select the characteristics and types of connecting lines.

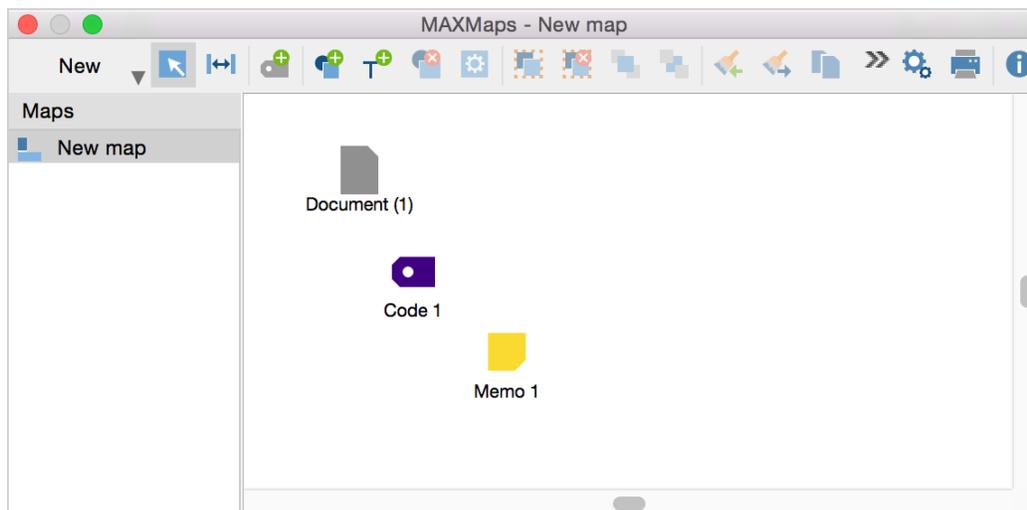
Importing Objects into a Worksheet

Each object that is imported into the worksheet – be it a code, a memo, a text, a coded segment, or a so-called free object – consists of two elements:

- A picture, and
- A label.

When importing a MAXQDA object, the MAXQDA default symbol is carried over as the picture and the MAXQDA name as the label. For example, when importing a code, the colored code symbol from the list of codes and the code name are carried over.

The following figure shows three inserted objects (a code, a memo, and a text) immediately after being imported. They have not been positioned on the drawing pad.



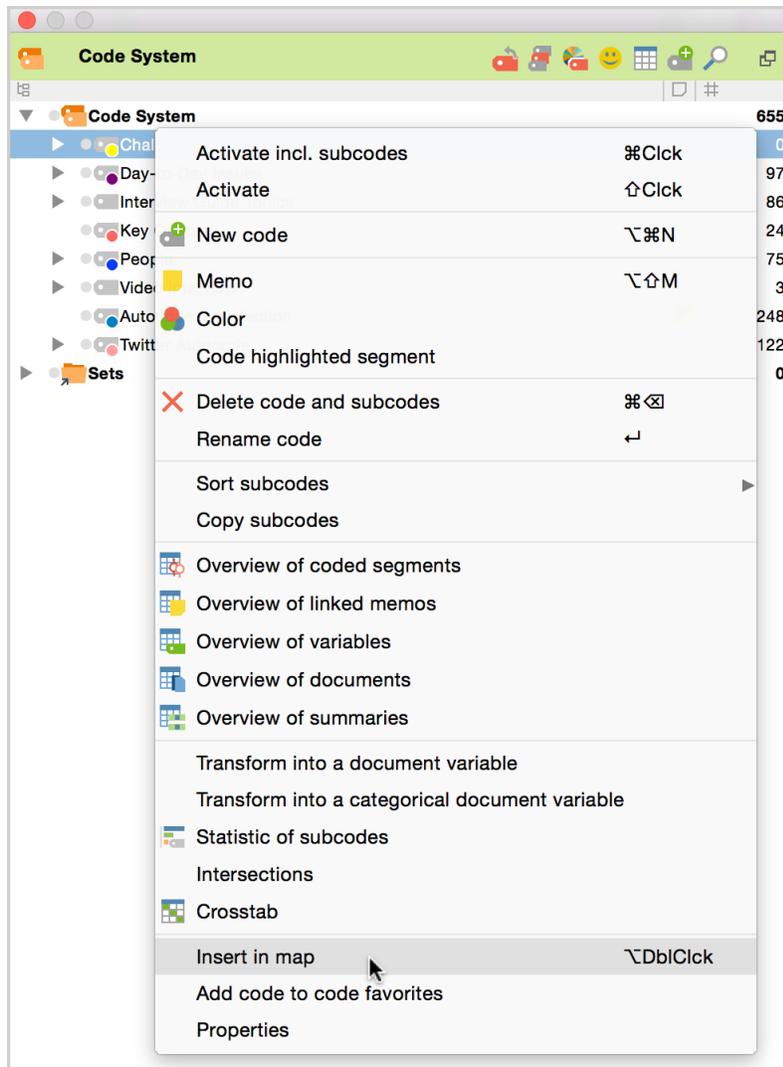
The MAXMaps window after importing a text, a code, and a document

Something similar occurs with a memo. In the drawing pad, the assigned memo icon (in MAXQDA) appears as a picture of the object and the title of the memo appears as a label. Both the label and the picture can be changed, or a picture, a diagram, or a photo can be imported. The label can also be changed along with the font type, font size, and other properties.

How to Import Standard Objects from MAXQDA

To import an element from MAXQDA, **hold down the Alt key and double-click** on the selected object while in MAXQDA.

Alternatively, you can **select the element with the right mouse button** and click the **Insert in map** option from the context menu. The chosen object is usually inserted in the drawing pad on the top left.



Inserting an element via the context menu

The following MAXQDA elements can be inserted. The brackets state where the elements are located in MAXQDA:

- a) Document groups (Document System).
- b) Documents (Document System).
- c) Codes and subcodes (Code System).
- d) Code memos (Code System).
- e) Memos attached to parts of documents (Document Browser).
- f) Memos attached to documents (Document System).
- f) Memos attached to document groups (Document System).
- h) Coded segments (Retrieved Segments).

All of these functions listed are only available if the window "MAXMaps" is open. The object is imported into the currently active map and displayed in the right part of the MAXMaps window. MAXMaps will inherit the same color of codes, subcodes, and coded segments that have been assigned in MAXQDA. This is also the case for memos and memo symbols. All elements are usually inserted into the upper left corner of the drawing pad if enough room is available.

Tip: The fastest way to import objects is by holding down the Alt key and double-clicking on the selected item.

The specific import procedures occur as follows:

a) Document groups (Document System):

Select the document group in the "Document System" first, then hold down the Alt key and double-click on the name of the text group. The choice can alternatively be carried out via the right mouse button.

b) Document (Document system):

Select the document in the "Document System" first, then hold down the Alt key and double-click on the name of the document group. The choice can alternatively be carried out via the right mouse button.

c) Codes and subcodes (Code System):

Select the code or subcode in the code system first, then hold down the Alt key and double-click on the name of the code. The choice can alternatively be carried out via the right mouse button.

d) Code memos (Code System):

Select the code memo in the code system first, then hold down the Alt key and double-click on the memo symbol. The choice can alternatively be carried out via the right mouse button.

e) Memos attached to passages of a document (Document Browser):

Select the memo in MAXQDA's "Document Browser" first, then hold down the Alt key and double-click on the memo symbol. The choice can alternatively be carried out via the "Overview of memos" table and use of the right mouse button.

f) Memos attached to documents (Document System):

Select the memo in MAXQDA's "Document System" first, then hold down the Alt key and double-click on the memo symbol. The choice can alternatively be carried out via the "Overview of memos" table and use of the right mouse button.

g) Memos attached to a document group (Document System):

Select the memo in MAXQDA's "Document System" first, then hold down the Alt key and double-click on the memo symbol. The choice can alternatively be carried out via the "Overview of memos" table and use of the right mouse button.

h) Coded segments (Retrieved Segments):

Select the coded segment in MAXQDA's window "Retrieved segments" first, then hold down the Alt key and double-click on the info box on the left side of the coded segment. The choice can alternatively be carried out via the right mouse button by clicking on the info box in front of the segment. In addition, coded segments can be selected directly from the different overviews which are available e.g. in the "Document System" or the "Code System."

How to Import Free Objects

Elements of a drawing that don't have any relation to objects in MAXQDA are understood as free objects. Free objects, similar to standard objects, also consist of two parts, namely a picture and a label (name). Since only text fields are frequently required without a picture, such text elements can be inserted with a separate button. Thus, a free object can be a text field or a picture with a label (description) underneath it. To insert such a free element, MAXMaps must be in the selection mode.



Click here to insert free objects and text fields

The labels can be deleted or renamed by using the context menu **properties**.

Arranging Connections between Objects

The connection lines drawn between single objects can be edited similarly to standard objects and free objects. You can determine the connecting line properties in the connecting line menu by choosing the selection mode and double-clicking on the connecting line.

Deleting Objects

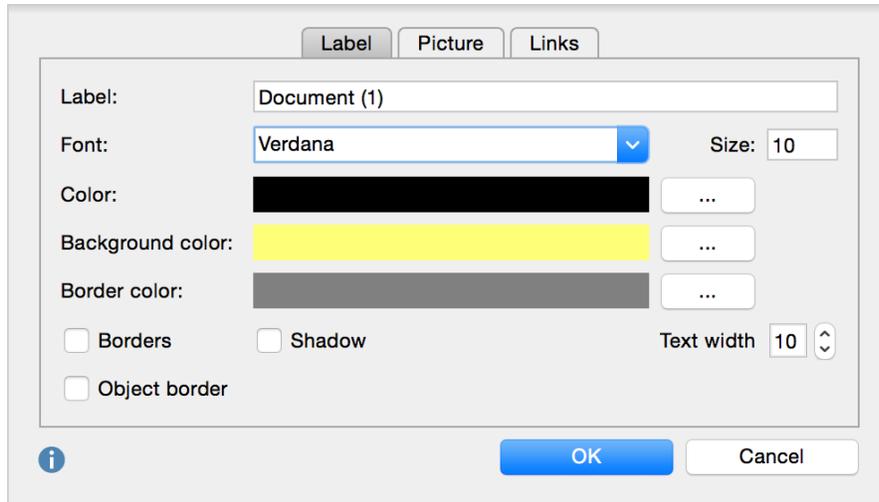
Every object can be removed from the drawing pad. To do this, select the desired object with the mouse. Then press the **Del** key (Windows) or the **Backspace** key (Mac), or click on the **Remove from Map**  symbol. This removes the object and all its connections with other objects entirely.

18.5 Object Properties

Object properties can only be modified when the selection mode is activated. Objects can be placed in the desired position in the drawing pad by holding down the left mouse button and dragging the object to its new place.

When you select an object with the **right mouse button**, a context menu will open that includes the option labeled **properties**. Here, you can determine properties of a single selected object.

Tip: If the sync mode is turned off, the quickest method to access the properties dialogue window is **double-clicking on the object** in question.



The dialog window "Object properties"

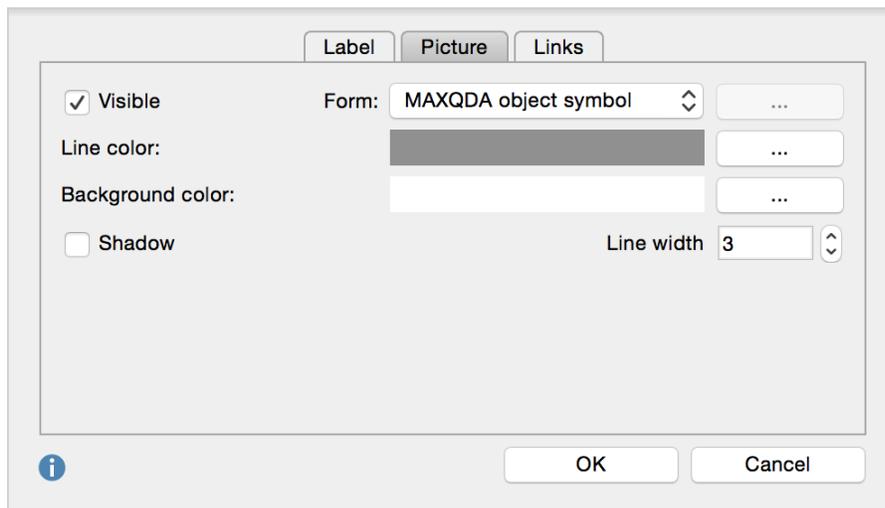
You can choose from the following properties, among others:

"Label" Tab

Label: i.e. the name of the object. This doesn't have any effect on the text name in the MAXQDA project. If you change the name of an object in a worksheet, e.g. the name of a text "Interview1" into "Peter Miller's," the name of the text in MAXQDA remains "Interview1."

Font, Font size, Font color: Diverse properties can be defined for the object, including font, font size, and font color.

Borders: a frame is drawn around the object.

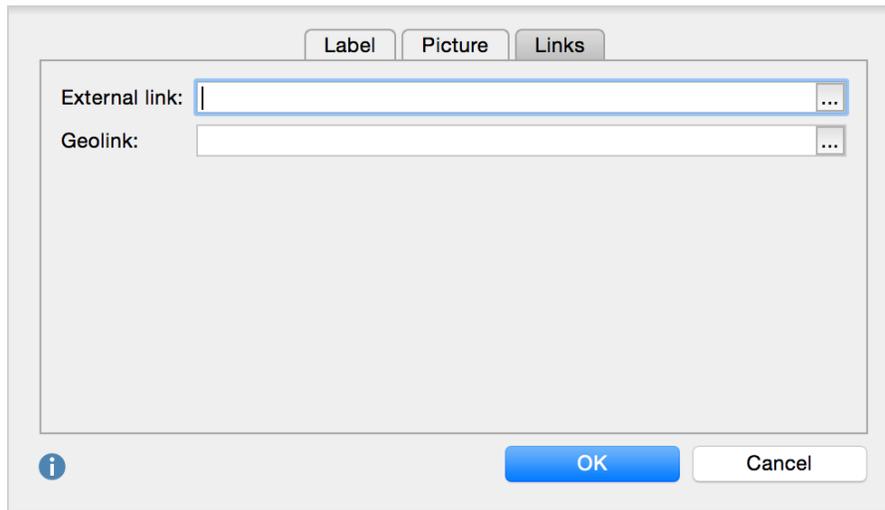


"Image" Tab

Visible: if this option is not selected, only the object's label is shown.

Form: For free objects, here you can define whether the object should be a circle, a rectangle or a rectangle with rounded corners. In addition, external graphics can be defined.

Shadow: a shadow is drawn around the object. This only applies to standard objects (not for imported bitmaps and graphics).



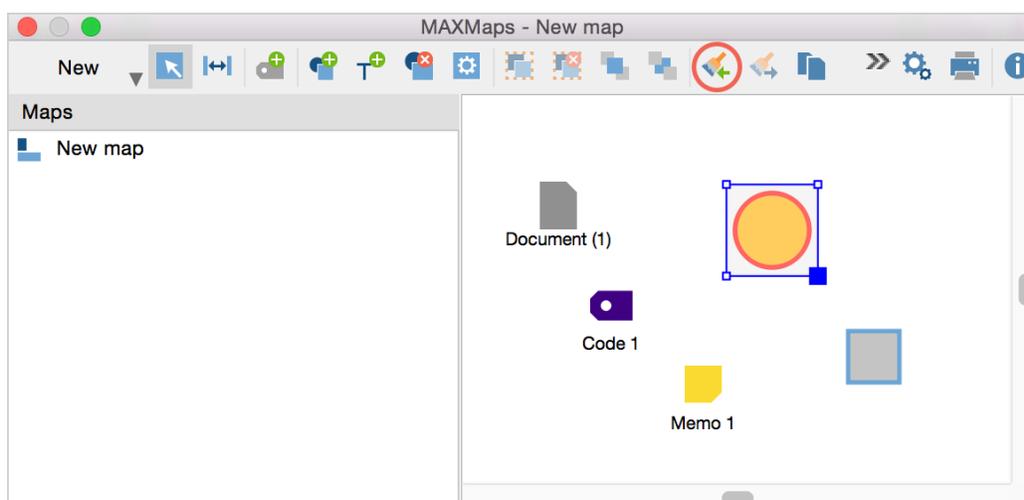
“Link” Tab

External link: Insert a reference to a local file here and it will be opened if you click on the object.

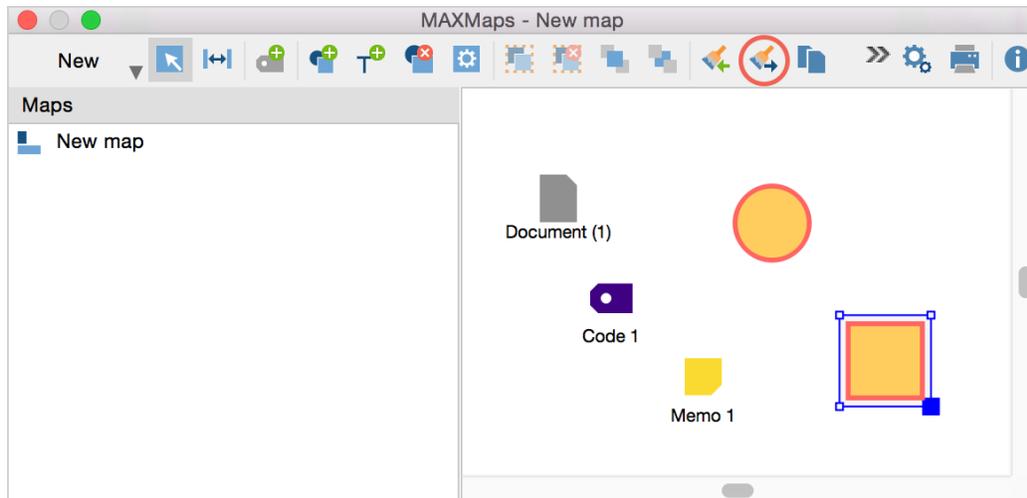
Geo Link: Insert a path to a .kml/.kmz file with geoinformation and it will be opened if you click on the object.

Format Painter to Copy Properties

MAXMaps permits the transfer of properties from one object to other objects. This allows for a more uniform appearance among different objects. The function is applicable to all objects including connection objects, and it also enables you to transfer the color and line type of one connecting line to another one.



The “format painter” option: copy format



The “format painter” option: apply format

How it works:

1. Select the object whose properties you wish to assign to another object.
2. Click on the option **format painter**  in the toolbar.
3. Select the target object, i.e. the object to which the format shall be applied.
4. Click on the option **format transfer**  in the toolbar.

Subsequently, the same format can be applied to an arbitrary number of objects. You can do this simply by **selecting these desired objects** and then choosing the **format painter** option. If you wish to transfer the format to several objects at the same time, you must select all of them using the mouse and holding down the Ctrl key.

Extending and Reducing the Size of Objects

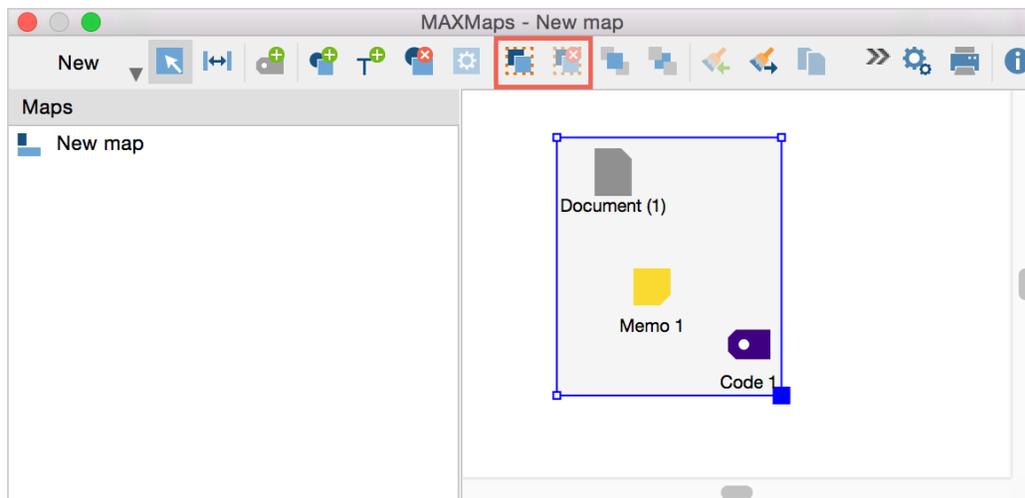
In the selection mode, every selected object can be extended or reduced by clicking on the “+” or “-” symbols found in the toolbar.

In the selection mode, you can jointly extend or reduce objects simply by drawing a frame around the objects with the mouse. You can then change the object size using the method described above. The relation between the size of the picture and the font size can be defined in the properties dialogue window.

Grouping Objects

Objects can be arranged into groups. To do this, use the mouse to first draw a frame around the object. The same can also be accomplished by holding down the Shift key and clicking on the desired objects one after another and clicking on the **Grouping** symbol, which can be found approximately in the middle of the toolbar.

Grouped objects can be separated again in the same way: Select the group and then click on the icon **Resolve grouping**. Within an established group, the separate elements of the group can no longer be modified with the individual properties menu. If at any point later on, you wish to modify an element, you have to resolve the grouping first.



The buttons "Group objects" and "Ungroup objects"

Picture Exchange - Importing Pictures

When importing MAXQDA objects, initially the standard icon assigned in MAXQDA is transferred. It is then possible though to exchange the picture and to import another picture, clip art, or drawing.

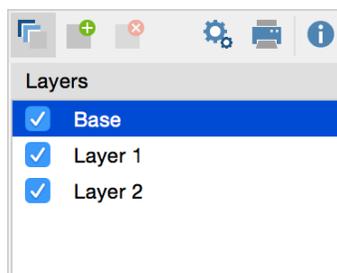
This works as follows:

- Select the desired object with the right mouse button. Then, choose the option **Change picture** from the context menu.
- Instead of the initial standard picture, the picture of your choice can be imported. JPG, PNG, and TIF are all permitted formats.

Layer

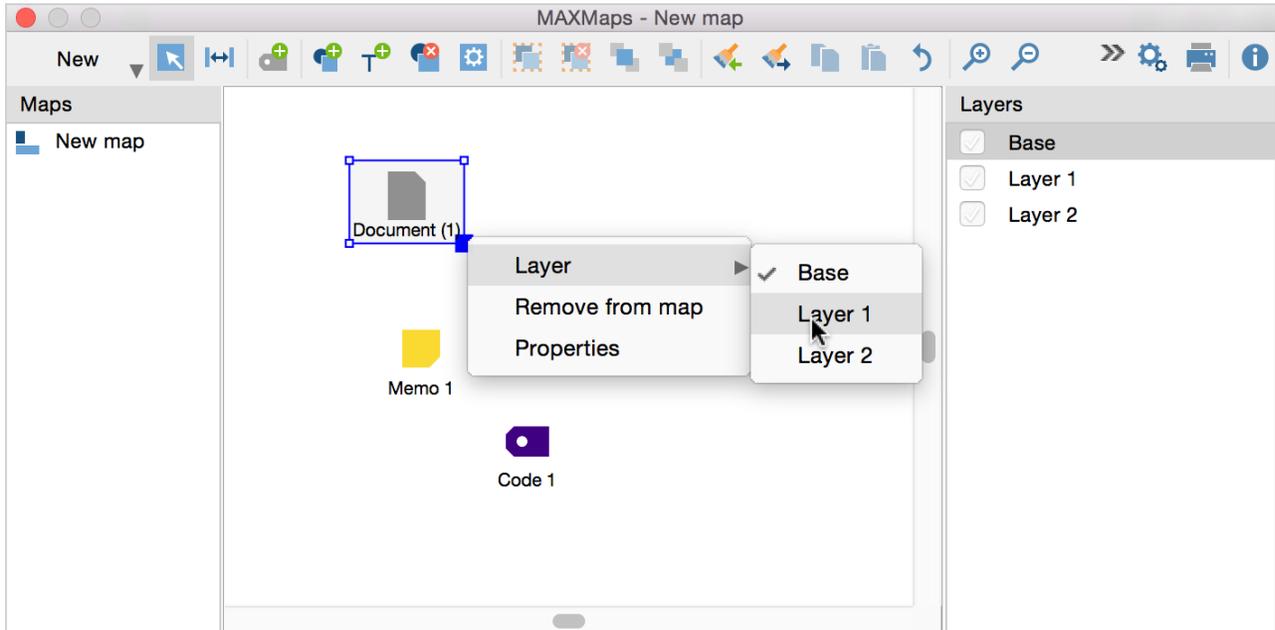
Objects can be assigned to different layers. If you ignore this option, all newly inserted objects will be assigned to the same standard "base" layer. The Layer option makes it possible to display or to remove parts of the drawing, so you can, for example, design a presentation that gradually increases in complexity. You can start building a model with only a few elements and gradually increase the number of elements that are displayed, thus creating a structure that continually gains complexity.

The Layer function can be called up by clicking the layer icon in the toolbar. This will open a window in which the existing layers are listed. At first, this includes only the "Base" layer. You can define a new layer by clicking on the arrows to the right of the layer icon, then selecting "New".



Layer window

Any object on the drawing pad can be assigned to a certain layer. Just choose the option **Layer** after selecting the object with the right mouse button and assign the object to the desired level.

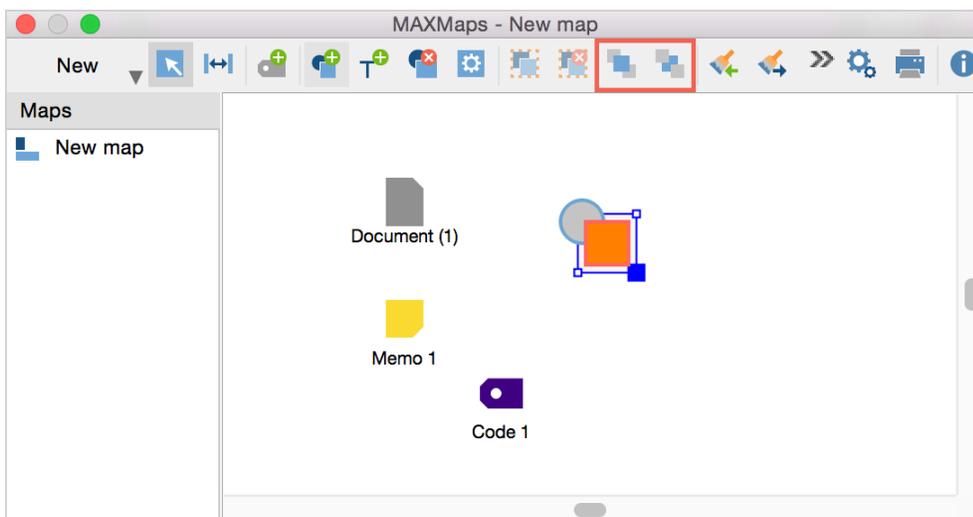


Assigning an object to a layer

To display a level, simply put a checkmark in front of the desired layer in the dialogue window.

Moving Objects to the Foreground or Background

To arrange the objects of a map according to your needs, it is necessary to be able to move objects from the foreground to the background and vice versa. The corresponding **Bring to the front** and **Move to the back** options are found in the toolbar.



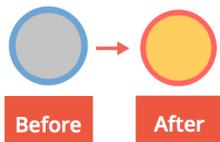
Buttons "Bring to the front" and "Move to the back"

This procedure is arranged intuitively:

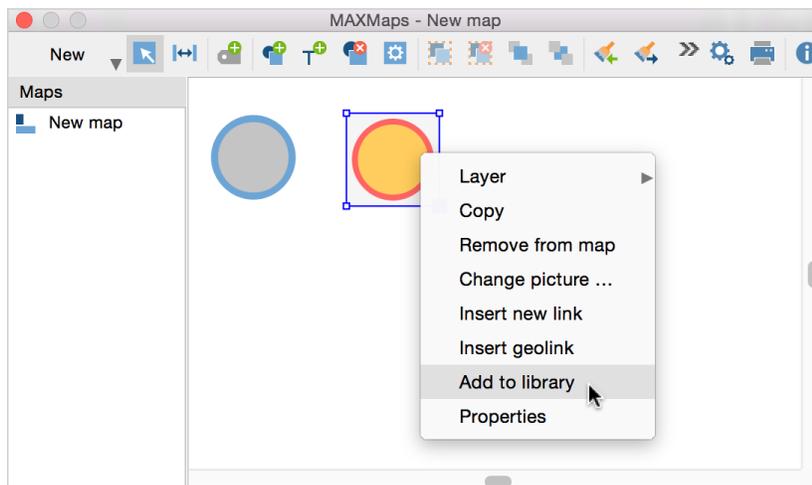
- Select the object whose position shall be changed.
- Click on **Bring to the front** or **Move to the back** to achieve the desired position.

18.6 The Object Library

The object library is a helpful tool for simplifying the organization of your objects. The archive gives you access to all objects that you have added to it. If for example, you create a specific shape, and want to have this handy for future use, simply **right-click on the object** and select **Add to library**.



A free object is customized

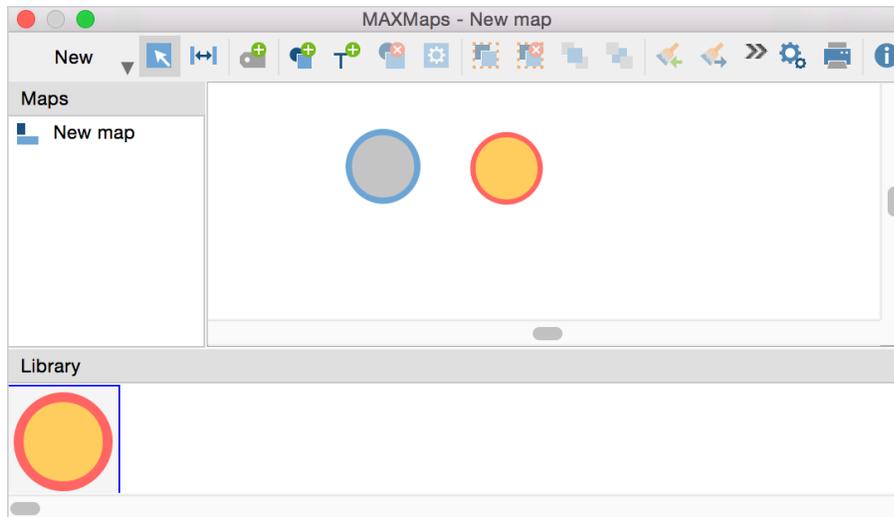


Add the object to the library for future quick access

This item is now in the object library. The entire library can be viewed by clicking on the library symbol:



You will then see the library at the bottom of the MAXMaps window.



The MAXMaps Library at the bottom of the MAXMaps window

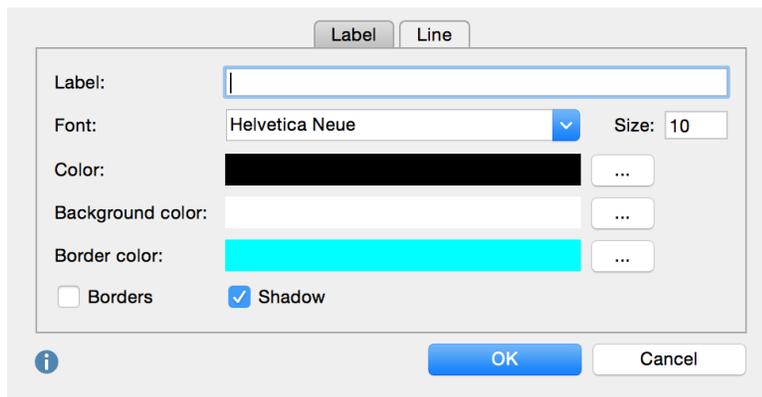
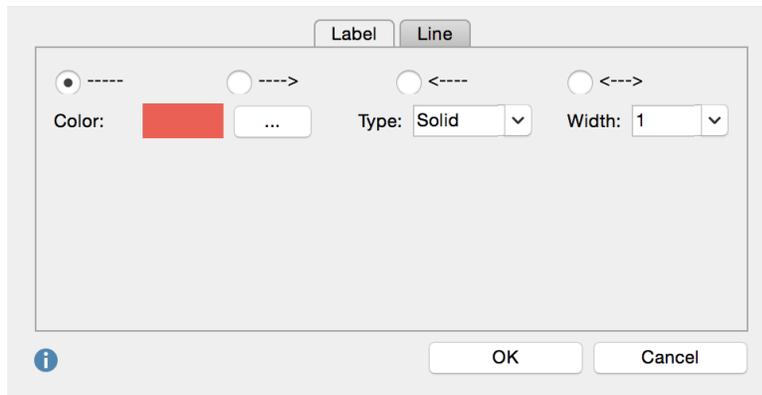
You can then quickly add this object to your map by simply double-clicking on it. All formatting is the same as in the original.

18.7 Link Mode: Linking Objects

To be able to draw connections between objects, you must first switch to the link mode. You can choose between three different link types in the toolbar:

1. A simple connection between two objects (no directional arrow).
2. A directional connection (a directional arrow).
3. A mutual connection (bi-directional arrows).

Link a starting element to a target element to connect objects. Start the procedure by selecting the starting object and clicking on it. Step two is to select the desired type of connecting line. After that, draw the line from the starting object to the target object. Once connected on the drawing pad, the connections remain unchanged and move with the objects. You can determine the properties of the connection lines in the selection mode, including the style and weight, the line color, and the label of a connecting line. Similar to standard and free objects, you can open the connecting line properties menu by double-clicking on the connection line.



Dialog box for connecting line properties

If in the link mode, it is not possible to extend or to reduce single objects. You can only change the size of the entire drawing.

18.8 Exporting and Printing Maps

Printing a Map

Any map created in the MAXMaps module can be printed in high quality. To start the print procedure, click the **Print** symbol in the toolbar.

Export a Map as a Graphic File

Maps can be exported in different formats. Thus, you can use them with other software programs, such as Microsoft Word or PowerPoint. To start the export procedure, click the **Save as picture** symbol in the toolbar.

The following file formats are available: SVG, JPG, PNG and EMF for windows. For presentation posters it is recommended you use the vector formats SVG or EMF, as these can be scaled.

Teamwork: How to Export and Import a Map

Maps can be exported and imported from one MAXQDA installation to a different one.



All the maps that you create will be saved in the MAXQDA project file (“mx12” format) along with the rest of your project data. The teamwork function works in a similar way as the other teamwork functions of MAXQDA, for instance, in the export of memos and codes.

To export a map, right-click on the map title in the left pane of the MAXMap window and select **Export Map**. Maps will be exported with the extension .MOD.

To import a map from another project, click the **New** button and select **Import Map**.

18.9 Synchronization with MAXQDA

The sync mode synchronizes your map with the MAXQDA project. For example, when in sync mode, if you hover the mouse over the icon associated with a document in the map, a connection to your project’s data is established. A tooltip with the first lines of the memo assigned to this document will appear, and by double-clicking on the icon you can open it in the MAXQDA Document Browser.

You can switch the sync mode on and off by clicking on the corresponding icon in the toolbar. The sync mode offers the following features:

Document Group and Document Set Symbols:

- When you hover the mouse: A tooltip with a preview of the memo assigned to the Document Group or Document Set will appear (if memo exists).
- When you click on the symbol: The corresponding Document Group or Document Set will be highlighted in the Document System.

Document Symbols

- When you hover the mouse: A tooltip with a preview of the document memo will appear (if memo exists).
- When you click on the symbol: The document will be highlighted in the Document System.
- When you double-click on the symbol: The document will open in the Document Browser.

Memo Symbols

- When you hover the mouse: A tooltip with a preview of the memo will appear.
- When you click on the symbol: The memo will be highlighted in the Document System, Code System, Document Browser or Multi-Media Browser, depending on the type of memo.
- When you double-click on the symbol: The memo will open.

Code Symbols

- When you hover the mouse: A tooltip with a preview of the memo will appear.
- When you click on the symbol: The code will be highlighted in the Code System.
- When you double-click on the symbol: The „Overview of Coded Segments“ for this code will open.

Coded Segment Symbols

- When you hover the mouse: A tooltip containing a preview of the coded segment will appear.
- When you click on the symbol: The corresponding element will be highlighted in the Code System, Document Browser or Media Browser, and move to the position of the coded segment.

Functions in Sync Mode

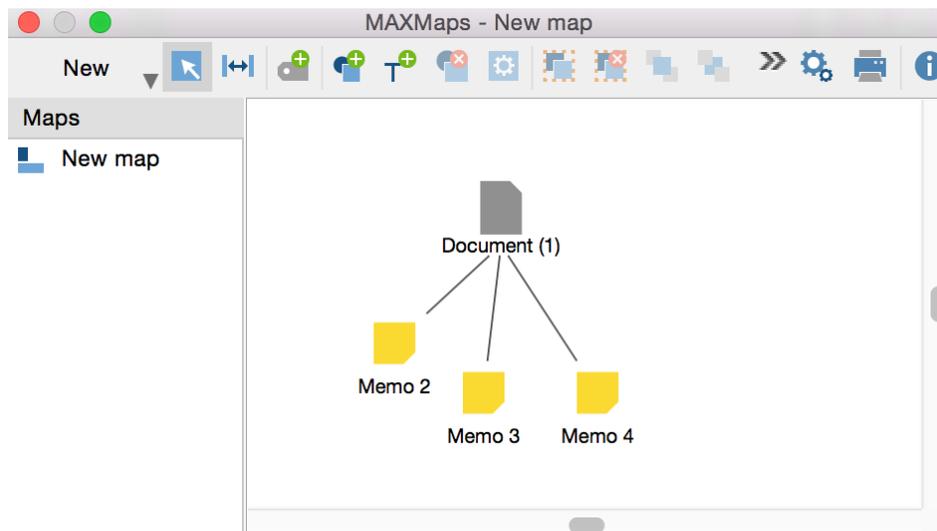
In addition to the options described above, the sync mode makes further functional connections possible between the Map and the MAXQDA database.

In the context menus for documents and codes, overviews of coded segments and linked memos are available. These tables function exactly as elsewhere in MAXQDA, meaning you can click on an element in the table to jump directly to the corresponding location in the document.

Furthermore, a code, that you click once in the “Code System” window, will be selected in an opened MAXMaps – as long as it exists on the map. This will work also if you switch off the sync mode.

Importing all of a Document’s Memos

The option **Import memos**, which is available in the context menu of a document, allows you to import all the memos that have been attached to a document. The corresponding memo symbols now appear in the drawing pad. Connection lines link them to the corresponding document.



All of the document’s memos displayed after import

Importing Subcodes

Right-clicking on a code displayed in the drawing pad causes the context menu to appear. It contains the option **Import subcodes**, which causes all the subcodes of the selected code to be imported. The symbols for these codes can now be seen in the drawing pad, including the lines linking them to the corresponding parent code.

When you select this option, MAXQDA will ask if you wish to use different line widths to reflect frequency. If you select Yes, subcodes with more coded segments will be represented with thicker



connecting lines than those with fewer coded segments. If a code already appears on the map, the connecting line will be supplemented if necessary.

Importing Co-occurring Codes

The context menu for a code also contains the option **Import co-occurring codes**. This option will insert all codes in the project that overlap with the selected code onto the work surface. All co-occurring codes will be connected to the selected code with dotted lines.

The same option is available from the MAXQDA Code System. When you click a code and select the **Intersections** option from the context menu, a list containing all the overlapping codes will appear. This list is effectively a preview of the codes that would be inserted in the map if you used the **Import co-occurring codes** function.

When you select this function, MAXQDA will ask if you wish to use different line widths to reflect frequency. If you select Yes, codes with more intersections will be represented with thicker connecting lines than those with fewer intersections.

If a co-occurring code is already present in the drawing pad, it will not be imported again. Yet, in any case, a connecting line will be drawn between this code and the co-occurring code. All code symbols will be inserted in the upper left corner of the drawing pad. Therefore, we recommend that you leave enough space there for the imported codes.

Inserting Text of a Retrieved Segment

When you right-click on a retrieved segment symbol in the map and select **Insert text of coded segment as label**, the complete text of the segment will be inserted in the map as a label.

Importing Linked Memos

This is another function for the automatic import of relationships that already exist in the MAXQDA project. All memos that are linked with the selected code will be imported into the drawing pad. Furthermore, to symbolize the link, lines will be drawn from each memo to the code. To avoid duplicate copies of memos that are already part of the drawing, these will not be imported a second time. In this case, only a line will be inserted from the memo to the code, provided that it does not already exist.

18.10 Model Templates in MAXMaps

With the model templates, using the one-of-a-kind MAXMaps tool to visualize connections and patterns in your data set is made even easier. During the research process, it is often the case that one focuses on a single part of the material: on a specific text, code, code overlap, or on a specific hypothesis or theoretical aspect addressed in a memo. The new models offer quick, accessible solutions for these situations, and they can be tweaked to fit your specific data set and research focus. MAXQDA uses your settings and data to create an appropriate diagram in MAXMaps. This map can be edited, added to, or rearranged as you see necessary. It produces results that you can literally see: the graphics quality is superb, and with using a vector format for export (like SVG or EMF), you can even print out your maps as large posters for presentations.

There are five different models:

1. **One-Case Model** – All relevant data attached to a document is illustrated in the map. This includes all appropriate memos, codes, and coded segments.
2. **One-Code Model** – This model is very similar to the One-Case Model, except that a code is the focus rather than a document. The coded segments and memos attached to the code are included in this model along with any memos that are linked to the code.
3. **Code Theory Model** – This model is especially helpful for the development of theory. It automatically displays all memos (with their ideas and hypotheses) attached to a specific code.
4. **Code Co-Occurrence Model** – This model illustrates the associations and intersections between selected codes. One or more codes are selected and dragged onto the MAXMaps window. All codes that intersect with any of these selected codes are then automatically inserted with an arrow connecting them to the code with which they intersect. The width of this arrow is dependent on the number of intersections. The model can be made more complex by including the subcodes in the visualization.
5. **Code-Subcode-Segment Model** – This is the most complex of the five models. The subcodes, connected memos, and the coded segments for all selected codes are illustrated in a single model.

The models make it possible to explore the data in a unique way. All elements of the map are directly synchronized with the MAXQDA project, which means you can see the content of memos and coded segments by simply moving your mouse over the appropriate icons. By double-clicking, you'll be taken directly to the appropriate part of the document. All model templates can be accessed in MAXMaps by clicking the **New** button.

18.11 The One-Case Model

Function of this model

In this model, a document from the “Document System” is at the center of the analysis. After selecting the model from the menu, the document to be analyzed is dragged onto the MAXMaps workspace. The purpose of the visualization is to make the memos, codes, and code segments for the selected document accessible.

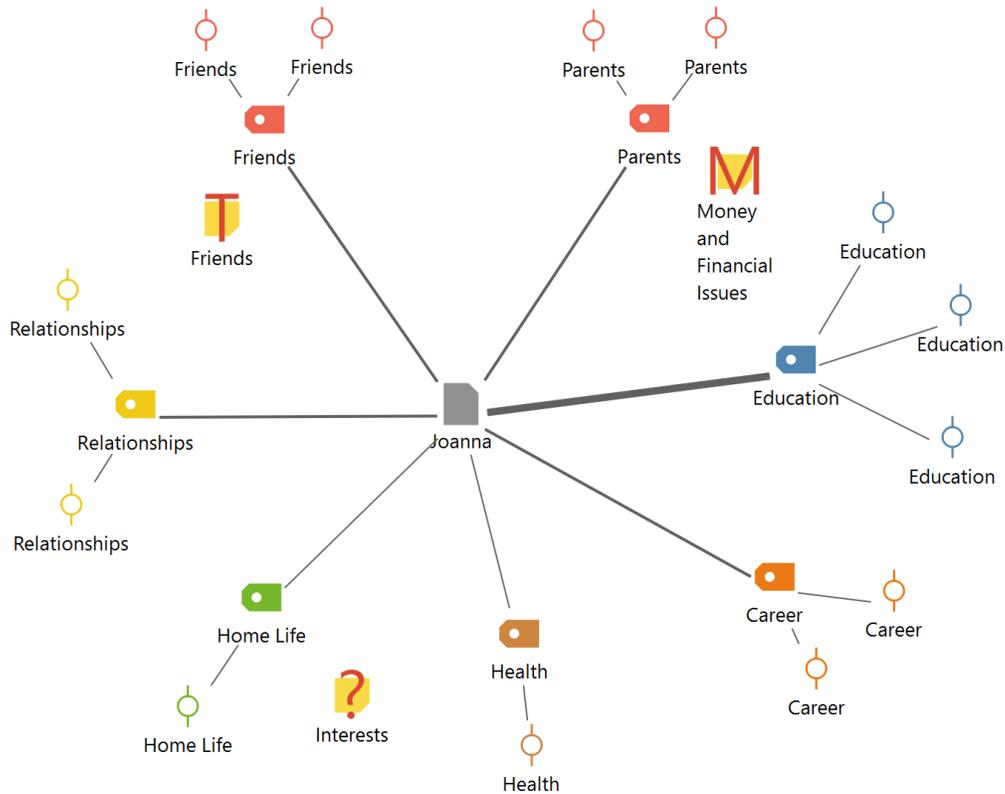
Model display in the map

The elements of the model will be displayed in the map with the document in the middle of the workspace and the other elements arranged in a star pattern around it. If memos are included, they are positioned at the top of the map.

The various elements are connected to the text by lines with seven levels of thickness. The thickness of each line is defined by the number of text segments coded with the particular code – the thicker the line, the higher the number of coded segments. It could be that in some cases a text has dozens and dozens of codes or memos, or that a very high number of text segments were coded. For this reason, you have the option of setting a maximum number of codes, memos, and text segments to be displayed, as well as the option of changing the exact search criteria.



One-Case Model



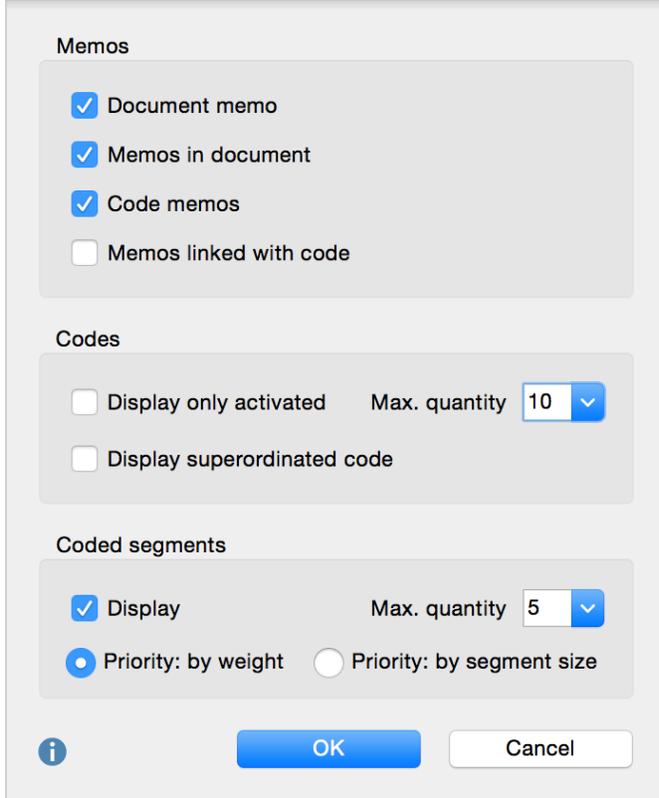
An example of the One-Case Model

Model Options

In the One-Case Model, the following elements can be included in the visualization:

1. Memos: both those attached to a text segment in the selected document and the memo attached to the document itself in the "Document System."
2. Codes that are used in the selected document.
3. Segments that have been coded with the codes from point 2.

Model options in detail



The One-Case Model options window

Memo options

- **Memos.** Here you can select each memo type to be included in the map: Document memos, Memos in document, code memos, Memos linked with code.

Code options

- **Display only activated codes.** Only those codes are displayed that you already activated in the “Code System” window.
- **Maximum quantity of codes to be displayed.** If there are more codes than the set maximum quantity to be displayed, the codes will be ranked according to quantity. If, for example, there are 11 codes, and the maximum is set to 10, the 10 most-used codes in the selected document will be displayed.
- **Display superordinated code.** Top-level codes can be additionally displayed.

Coded Segments options

- **Display coded segments.** If this box is checked, the coded segments will be displayed for each of the codes. You can set the maximum number of coded segments to be displayed per code.
- If there are more coded segments than the maximum to display, you have the option of setting the **Priority of coded segments** by weight (relevance) or by segment size.



18.12 The One-Code Model

Function of this model

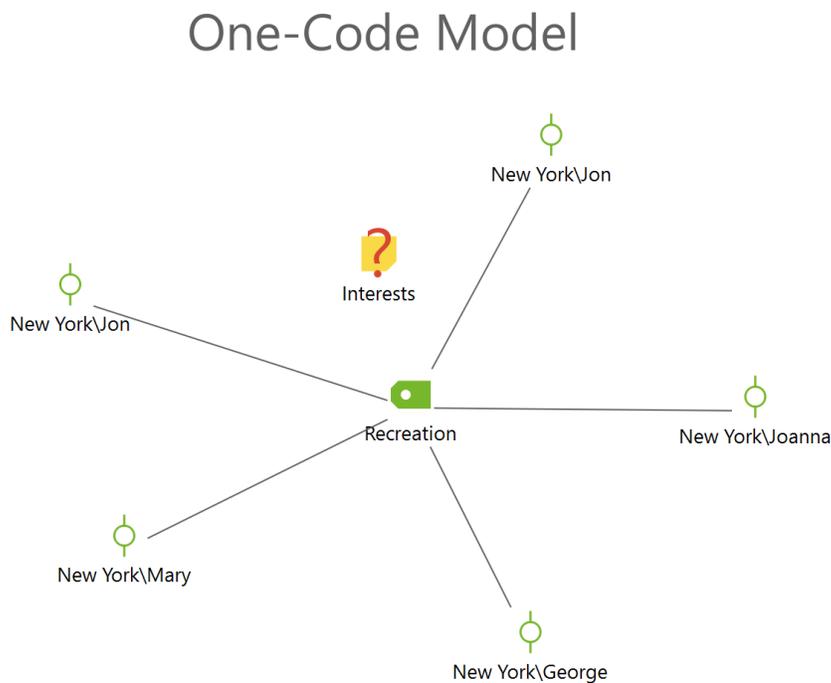
A code is the focus of this model. After selecting the model in MAXMaps, the code must be dragged onto the MAXMaps workspace.

The purpose of this model is to display the selected code with all its connected memos and coded segments.

The One-Code Model is similar to the One-Case Model, except that a code is the focus rather than a document.

Model display in the map

In this model, the code memo, other memos linked to the code, and all the document segments coded with the selected code can all be displayed. The code icon is put in the center of the work space, and the other elements are arranged in a circle around it. Lines connect all the elements to the code.



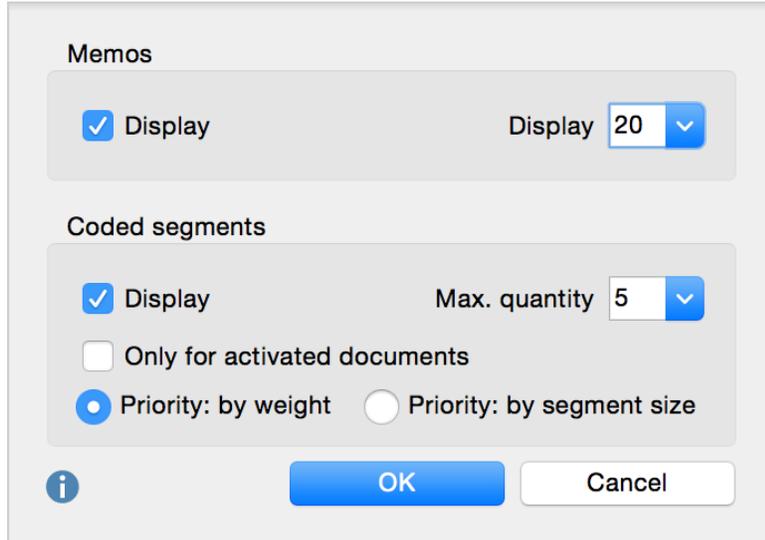
The One-Code Model

Model options

The following elements can be displayed in the One-Code Model:

1. Memos: both the code memo and any memos linked to the code.
2. Coded segments.

Model options in detail



The One-Code Model options

Memo options

- **Display memos.** If this box is not checked, no memos will be displayed in the map. If the box is checked, you can also set the maximum number of memos to be displayed.

Coded segments options

- **Display coded segments.** If this box is checked, coded segments will be displayed for each of the codes. You can set the maximum number of coded segments to be displayed per code.
- Display only coded segments in **activated documents**.
- If there are more coded segments than the maximum to display, you have the option of **ranking the coded segments by weight** (relevance) or by length (measured in bytes) of the coded segments.

In Sync Mode

Memo icon

- **Mouse over:** shows a preview of the memo.
- **Double-click:** highlights the document in the “Document System,” opens the document in the “Document Browser,” and moves to the point in the document where the memo is positioned.
- **Second double-click:** opens the memo.

Code icon

- **Mouse over:** shows a preview of the code memo.
- **Left-click:** highlights the code in the “Code System” window.

Coded segment icon

- **Mouse over:** shows a preview of the code memo.

- **Left-click:** highlights the code in the “Code System” and the document in the “Document System.”
- **Double-click:** opens document in the “Document Browser” and moves to the position of the coded segment.
- **Right-click:** shows context menu, where you have the option of displaying the entire coded segment in the map.

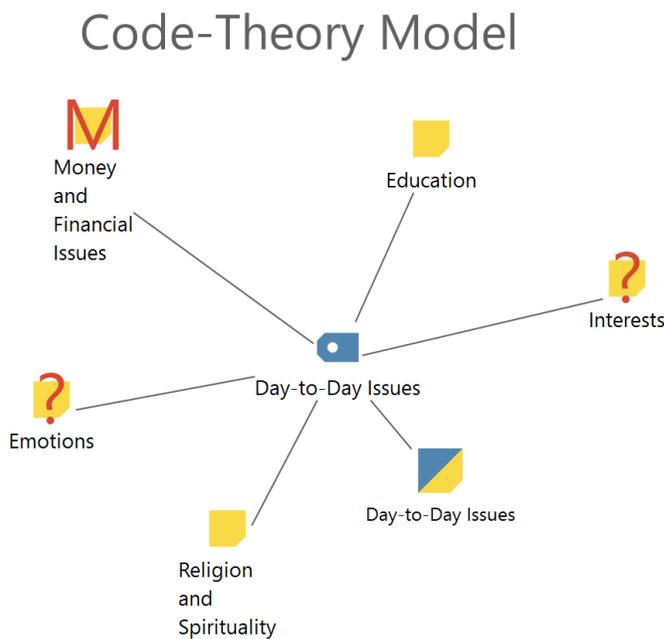
18.13 The Code Theory Model

Function of this model

A code, its subcodes (optional), and the memos attached to these code(s) are displayed in this model.

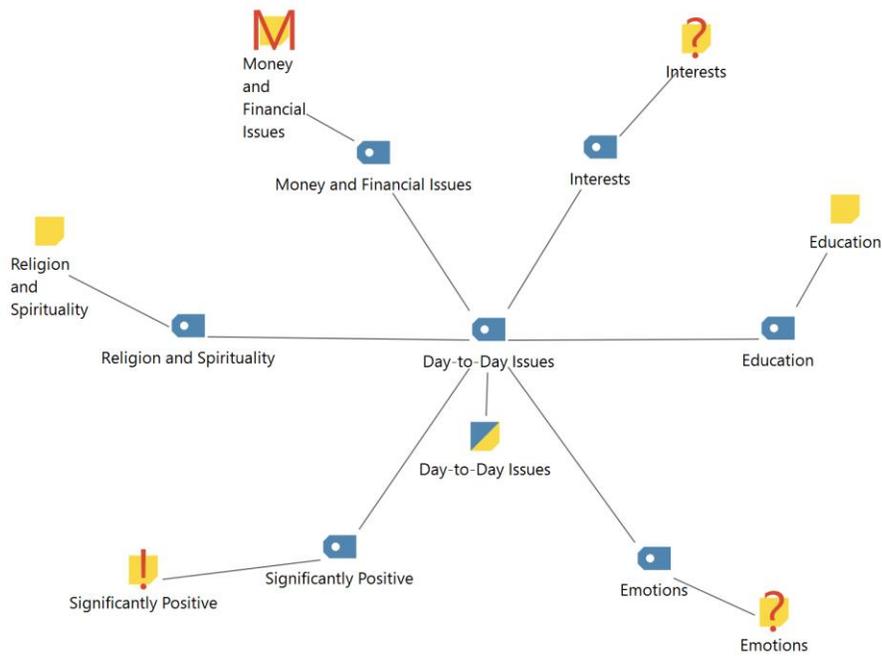
Model display in the map

The code icon is put in the center of the map with the subcodes arranged in a circle around it. Subcodes can be arranged on two hierarchical levels, with the first level forming an inner circle around the code, and the second level forming an outer circle. The memos are connected to the codes/subcodes with a line. Since memos can be linked to more than one code, each code may be connected with several lines.



Code Theory Model without subcodes. Code memos and linked memos of subcodes will be displayed.

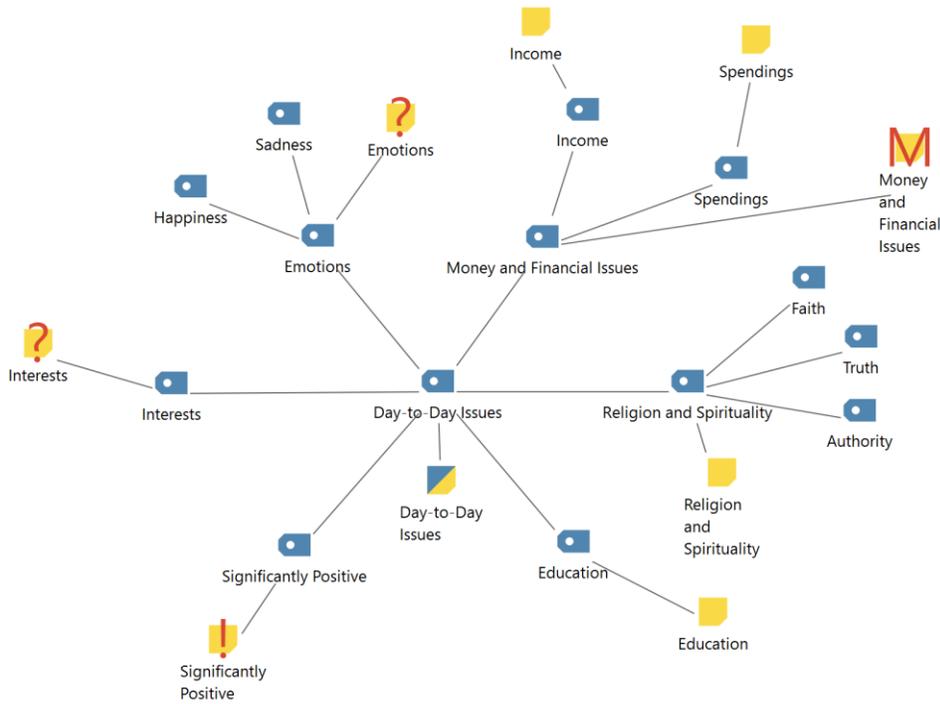
Code-Theory Model



Code Theory Model with integration of subcodes on 1st level: subcodes are displayed in a circle around the code. Memos are displayed in an outer second circle. The code memos and linked memos are imported, too.



Code-Theory Model



Code Theory model with integration of subcodes on two levels: The subcodes are displayed around the main code.

Model options

In the Code Theory Model, the following elements can be included in the visualization:

1. Memos that are attached or linked to the selected code (and its subcodes, if desired).
2. Subcodes of the selected code.

Model options in detail

Memos

Display code memos Max. quantity

Priority: by date Priority: by memo size

Subcodes

Display activated only Include subcodes - level

The Code Theory Model options

Memo options

- **Display memos.** If this box is not checked, no memos will be displayed in the map. If the box is checked, you can also set the maximum number of memos to be displayed. If there are more memos than the set maximum quantity to be displayed, the memos will be prioritized according to creation date (newer codes get priority) or according to the size (longer memos get priority).

Subcode options

- You can limit the visualized subcodes by **only displaying those activated** in the “Code System.”
- You can also decide how many **levels of subcodes are displayed** (0 = no subcodes; 1 = only the first level of subcodes; 2 = two levels of subcodes).

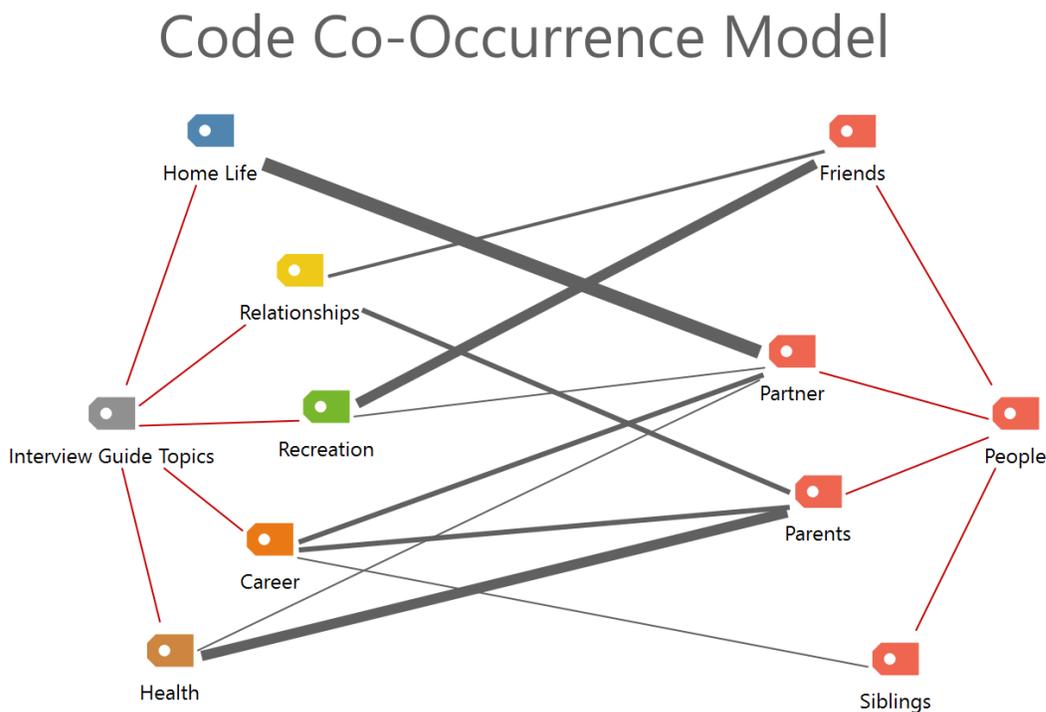
18.14 The Co-Occurrence Model

Function of this model

This model displays the intersections (or co-occurrences) of selected codes with other codes. It is also possible to make the model more complex by including subcodes.

Model display in the map

One or more codes are selected and dragged onto the MAXMaps work space. These codes are connected with a black line to the code(s) with which they intersect. The thickness of the lines indicates the frequency of the intersections. If the two codes intersect many times, the line connecting the two will be thicker. Codes are connected to their subcodes with red lines.



The Code Co-Occurrence Model



Model options in detail

Code Co-Occurrence Model options

Code/Subcode options

- You can now select which codes are to be included in the map.
- The visualization can be limited to **include only intersections with activated subcodes**.
- You can select how many **levels of subcodes** are to be included (0 = none; 1 = only the first level; 2 = the first two levels).
- The **minimum number of intersections** can also be set. If this minimum number of intersections isn't reached, the connections will not be included in the map.

Co-Occurrence options

- By selecting a certain **required code weight**, you can limit the displayed intersections according to its relevance. By setting the required weight to 80 to 100, for example, one would analyze only those codes, to which the researcher assigned such a high value.

18.15 The Code-Subcode-Segments Model

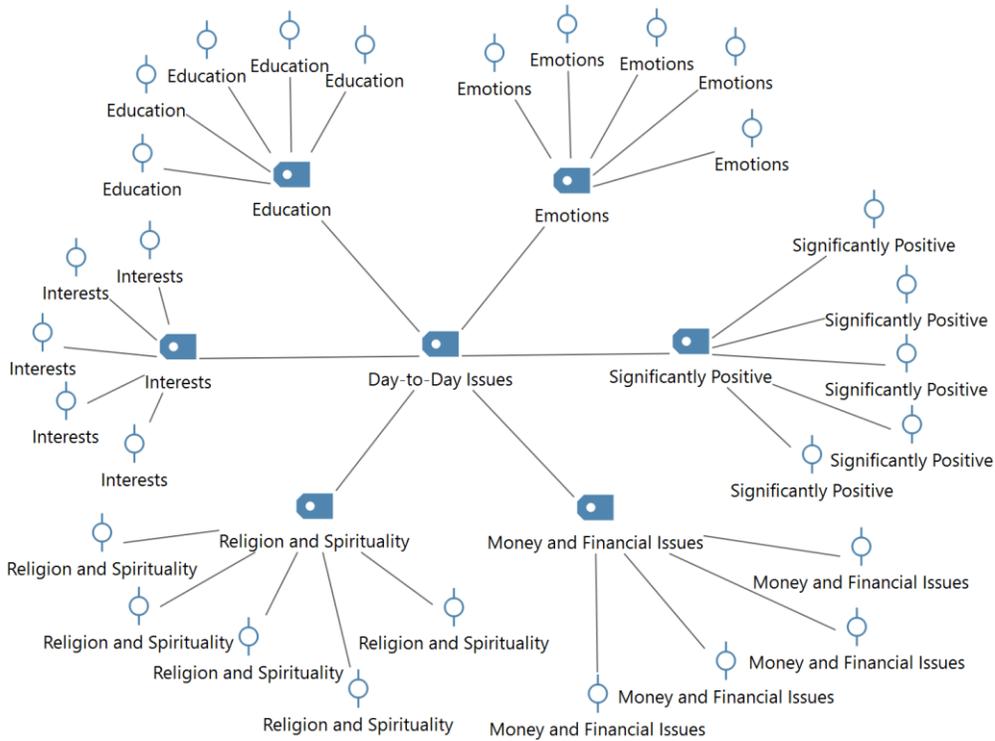
Function of this model

This model creates a map with a selected code, its subcodes, and the segments coded with these codes. This model is similar in many ways to the One-Case Model except that a code is the focus, rather than a document.

Model display in the map

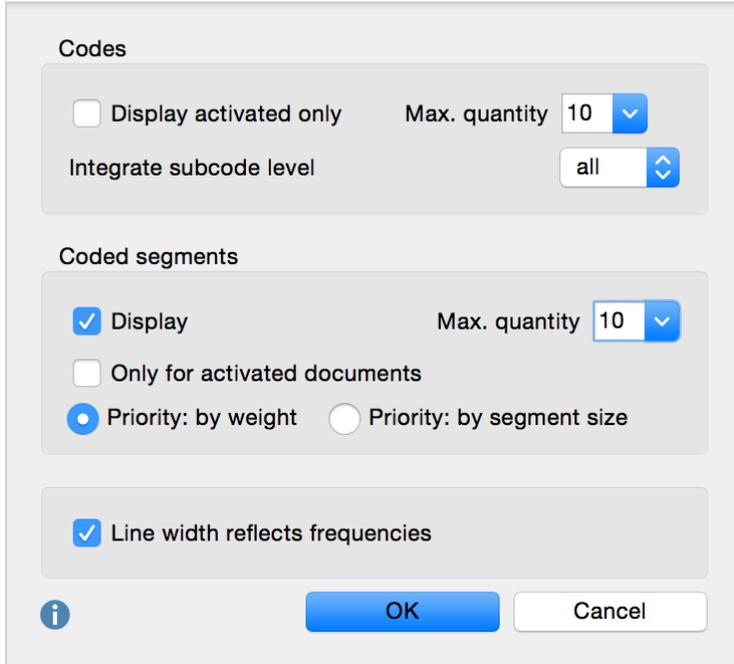
Your selected code is placed in the center of the map with the subcodes arranged in a circle around it and connected to it with lines. All coded segments are then connected to the appropriate code/sub-code.

Code-Subcode-Segments Model



The Code-Subcode-Segments model

Model options in detail



Codes

Display activated only Max. quantity 10

Integrate subcode level all

Coded segments

Display Max. quantity 10

Only for activated documents

Priority: by weight Priority: by segment size

Line width reflects frequencies

 **OK** Cancel

The Code-Subcode-Segments Model options

Code options

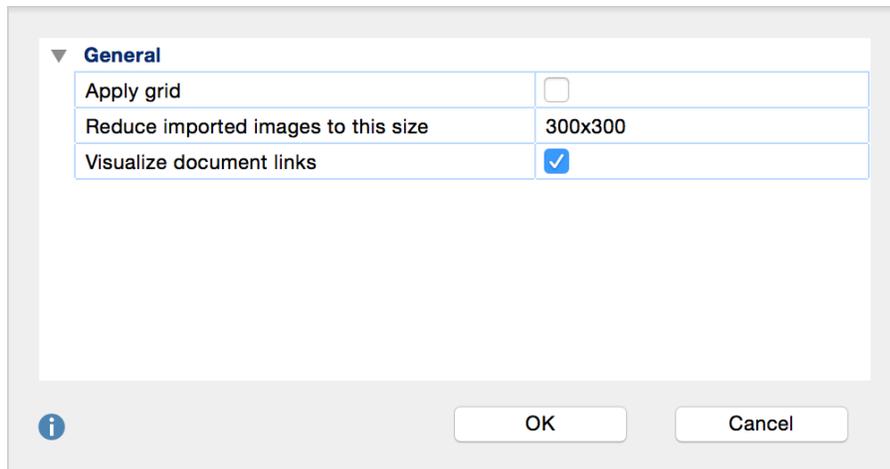
- **Subcodes can be limited to those activated** in the “Code System” window. You can also set the maximum number of subcodes to be displayed.

Coded segment options

- **Display coded segments.** If this box is checked, coded segments will be displayed for each of the codes. You can also set the maximum number of coded segments to be displayed per code.
- You can also limit the **coded segments by choosing to display only those that are found in the documents activated** in the “Document System.”
- If there are more coded segments than the maximum to display, you have the option of **ranking the coded segments by weight** (relevance) or by length (measured in bytes).

18.16 Options in MAXMaps

By clicking on the **Options**  symbol, a window will open where you can view and change standard settings.



The "Options" window

Apply grid – this option “snaps” your objects to a grid, which is visualized in the background. This allows you to more easily line up objects in straight lines, and the grid will not be shown in exported pictures.

Reduce imported images to this size – this setting determines how imported images are handled. You can select 300x300, 600x600, 1,200x1,200, or “Original size.” The longest side of an imported picture is then reduced to the maximum pixel size. Background pictures are always imported in their original size.

Visualize document links – when this box is checked, document links are visualized by a blue line between documents.



19 Statistics and Graphics Functions

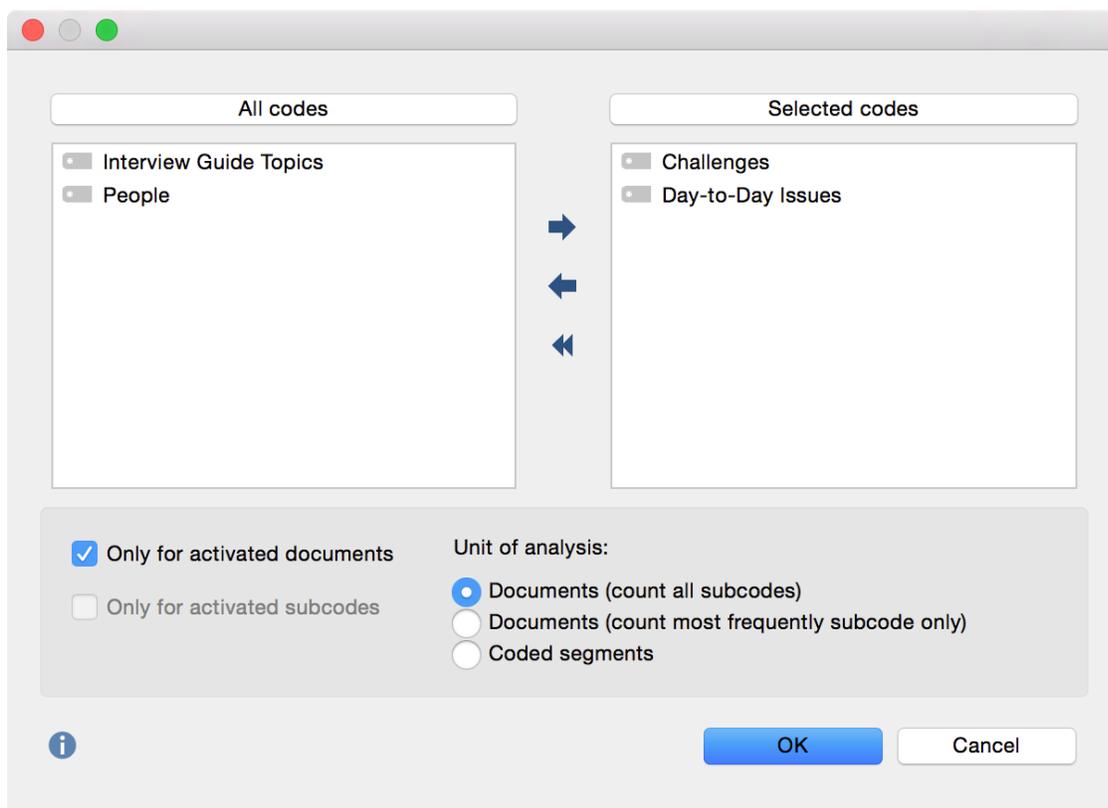
19.1 Frequency Tables and Charts for Subcodes

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 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** (⇧) key, **Ctrl** key (Windows) or **cmd** key (Mac)



Statistics for subcodes: choose codes

For codes containing subcodes, this function can also be called up directly from the Code System. Right-click on the code and select **Statistic of subcodes**. In this way, you can also access the statistics functions for codes that are not at the top level of the code system.

The analysis can be restricted to currently activated documents and subcodes. To do so, check the appropriate boxes.

Select Unit of Analysis for Statistical Evaluation

At the bottom of the screen, you will find options for the unit of analysis. The following options are available:

Documents (count all subcodes) – This option corresponds, in principle, to an evaluation of multiple responses. In this case, the analysis is performed assuming that when several subcodes can be coded in a document, the subcodes are not mutually exclusive. MAXQDA analyzes the number of documents to which a subcode has been assigned. All subcodes that occur in a given document will be counted, on a per-document basis. This type of analysis would typically be employed to answer the question "What percentage of cases (= documents) mention the theme XY ?".

Documents (count most frequent subcode only) – In this case, the analysis is performed under the assumption that subcodes are mutually exclusive, meaning that subcodes can be interpreted as categorical variables. MAXQDA analyzes the number of documents to which the subcode has been assigned. On a per-document basis, only the subcode that occurs most frequently is counted. If two or more subcodes occur with the same frequency within a document, a new "not defined" category will appear.

Coded segments – This option analyzes the number of coded segments per subcode. As a rule, it makes sense to use this option only when the **Only for activated documents** option is also selected, otherwise the output frequencies simply correspond to the frequencies in the Code System.

Note: Regardless of which unit of analysis is selected, not only the direct subcodes of the selected parent codes, but also the subcodes of subcodes, will be included in the analysis. All lower-level codes will be aggregated with the top-level code, and only this code will be displayed in the results table.

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:

	Frequency▼	Percentage	Percentage (valid)
Scarcity of resources	10	58.8	58.8
Egoism	4	23.5	23.5
War	3	17.6	17.6
Total	17	100.0	100.0
Missing	0	0.0	
Total	17	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: Document (count all subcodes) – The table will show the number of documents in which the respective subcode was assigned. For each document, all subcodes that occur in the document will be counted. The number of missing values corresponds to the number of documents to which none of the analyzed subcodes occur.

Unit of Analysis: Document (count most frequent subcode only) – The table will show the number of documents in which the respective subcode was assigned. Subcodes are mutually exclusive. For each document, only the most frequently occurring subcode will be counted. The number of missing values corresponds to the number of documents in which none of the analyzed subcodes occur.

Unit of Analysis: Coded Segments – The table will show how often a subcode was assigned, meaning how many coded segments exist for this code.

Example: In this MAXQDA project, five interviews were analyzed with respect to the issue “World Problems.” In total, 17 segments in nine documents were coded, and distributed among the three subcodes “Scarcity of resources,” “War” and “Egoism.”

When “Coded Segments” is selected as the unit of analysis, MAXQDA generates a table which shows how often each of the three subcodes occurs in the nine interviews. Missing values are not taken into consideration with this option. The basis for the calculation of percentages is the total number of coded segments: In this example, 17:

	Frequency▼	Percentage	Percentage (valid)
Scarcity of resources	10	58.8	58.8
Egoism	4	23.5	23.5
War	3	17.6	17.6
Total	17	100.0	100.0
Missing	0	0.0	
Total	17	100.0	

Unit of Analysis: Coded Segments

If “Documents (count most frequent subcode only)” 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 4 interviews. Note the category “not defined,” which occurs when two or more subcodes are present in equal frequency within a document; in this case, twice. 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, nine.

	Frequency▼	Percentage	Percentage (valid)
Scarcity of resources	4	44.4	44.4
Egoism	2	22.2	22.2
undefined	2	22.2	22.2
War	1	11.1	11.1
Total	9	100.0	100.0
Missing	0	0.0	
Total	9	100.0	

Unit of Analysis: Document (count most frequent subcode only)

When the unit of analysis “Documents (count all subcodes)” is selected, MAXQDA counts the number of documents in which each world problem occurs. The upper “Total” row shows the number of documents in which at least one of the world problems is coded. The “Percentage” column shows the percentage of people who mentioned at least one of the respective world problems.

	Frequency▼	Percentage	Percentage (valid)
Scarcity of resources	6	66.7	66.7
Egoism	4	44.4	44.4
War	3	33.3	33.3
Total	9	100.0	100.0
Missing	0	0.0	
Total	9	100.0	

Unit of Analysis: Document (count all subcodes)

The following table schematically represents the structure:

Subcode A	Number of documents in which Code A occurs.
Subcode B	Number of documents in which Code B occurs.
Subcode C	Number of documents in which Code C occurs.
Total (valid)	Number of documents in which AT LEAST ONE of the analyzed subcodes occurs.
Missing	Number of documents in which NONE of the analyzed subcodes occurs.
Total	Number of analyzed documents in total.



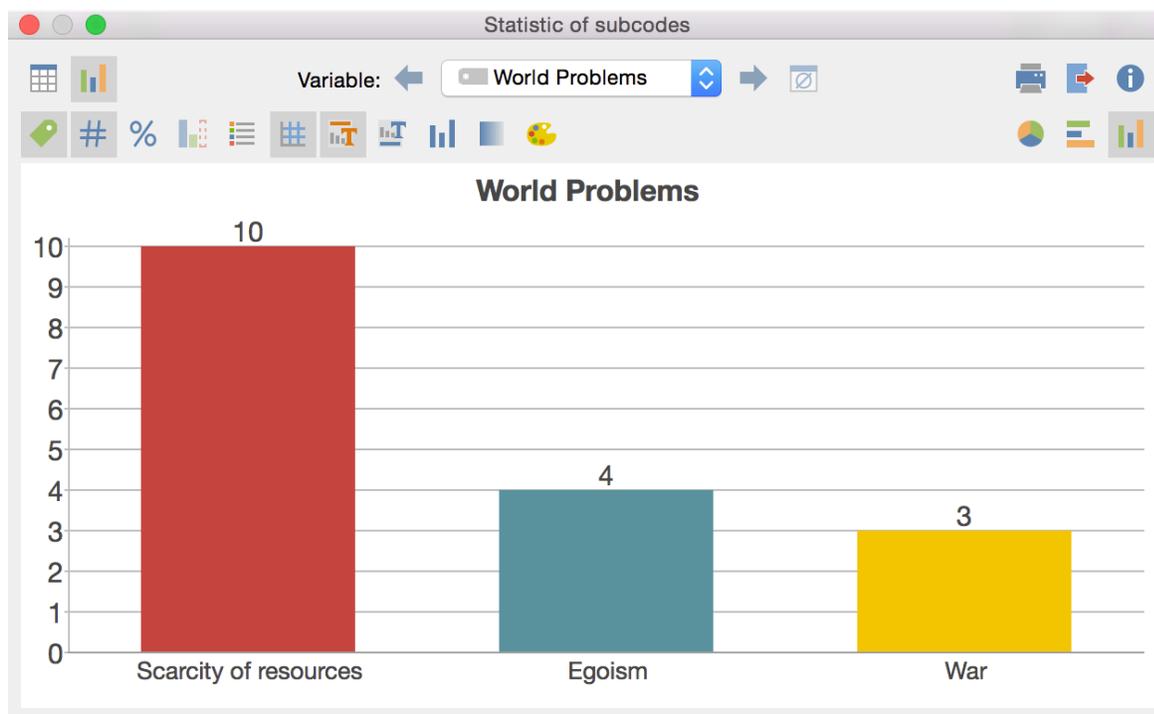
Toolbars

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.

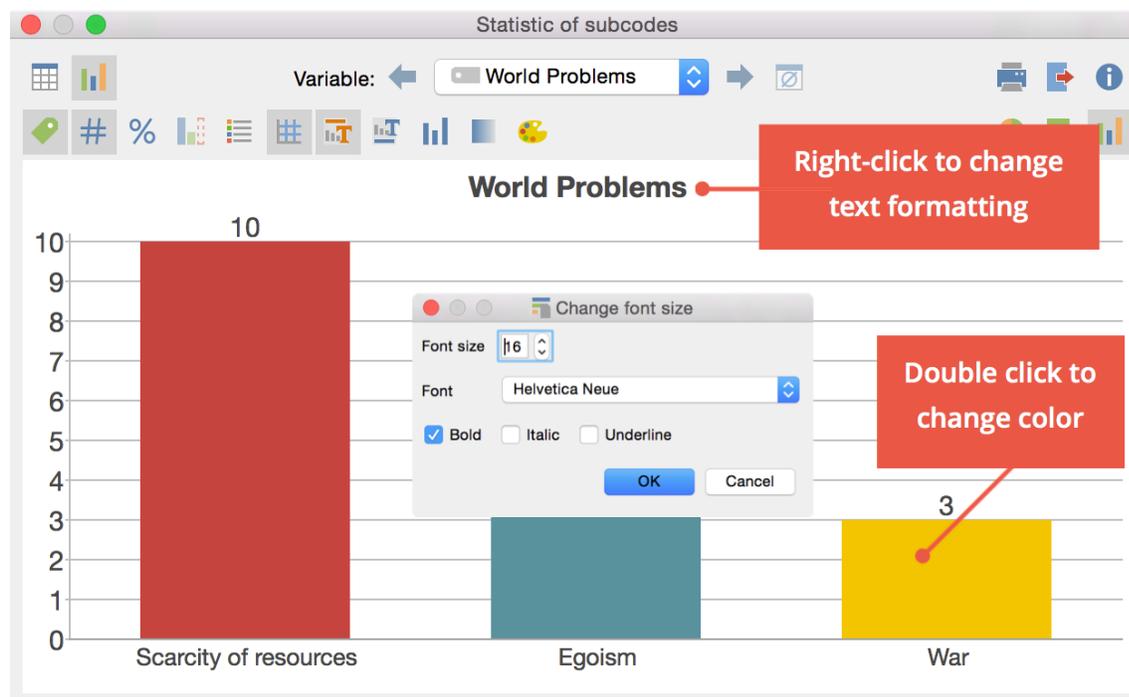
-  **Display missing values** – hide or show missing values category.
-  **Display legend** – hide or show the legend, which is switched “off” by default in bar charts.
-  **Display scale** – hide or show the scale axis in bar charts.
-  **Display title** – hide or show diagram title.
-  **Display text** – 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

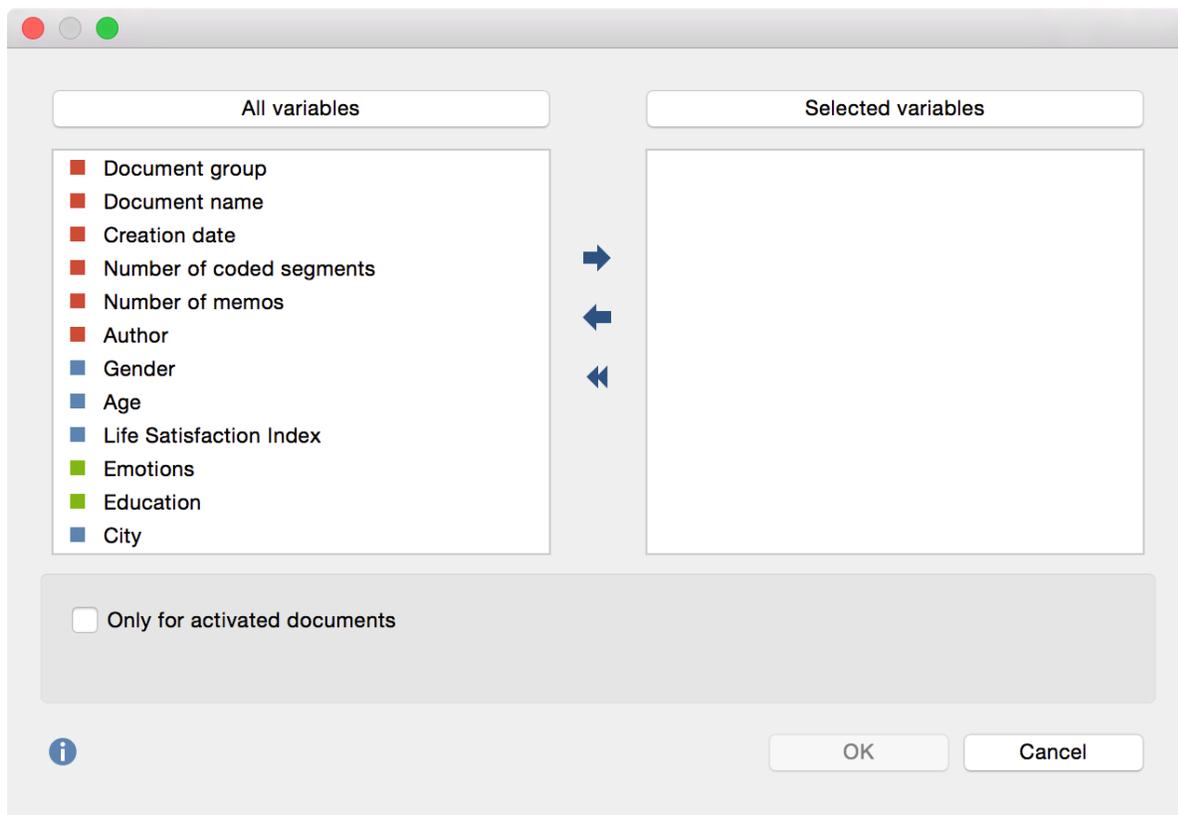
Like frequency tables, charts can be printed and exported. Charts will be exported in PNG format, or as vector graphics in SVG format.

19.2 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,

The split “Choose variables” window is displayed below: On the left side, all existing 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. To select multiple variables, hold down the Shift (⇧), Ctrl (Windows) or cmd (Mac) key.



Statistics and Graphics: Choose Variables

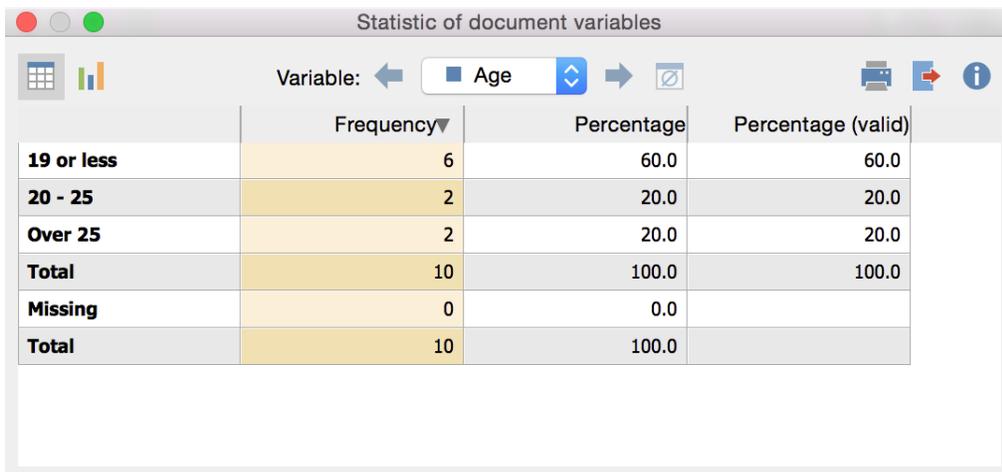
Note: System variables that are created and managed by MAXQDA are marked in red; codes that have been transformed into variables are marked in green.

Both lists can be alphabetized by clicking on the column headers. By selecting **Only activated documents** you can limit the analysis to currently activated documents, for example the transcripts of selected interviewees. The corresponding option **Only activated codes** is also available.

Tip: The statistics functions for variables can also be accessed directly with the  button in the „List of document variables“ and „List of code variables“. MAXQDA then begins the statistical analysis for only the selected variables, then considers all documents or codes.

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.



The screenshot shows a window titled "Statistic of document variables". At the top, there is a toolbar with a grid icon, a chart icon, and a "Variable:" dropdown menu currently set to "Age". To the right of the dropdown are navigation arrows and a print icon. Below the toolbar is a table with the following data:

	Frequency▼	Percentage	Percentage (valid)
19 or less	6	60.0	60.0
20 - 25	2	20.0	20.0
Over 25	2	20.0	20.0
Total	10	100.0	100.0
Missing	0	0.0	
Total	10	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 variable; 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.

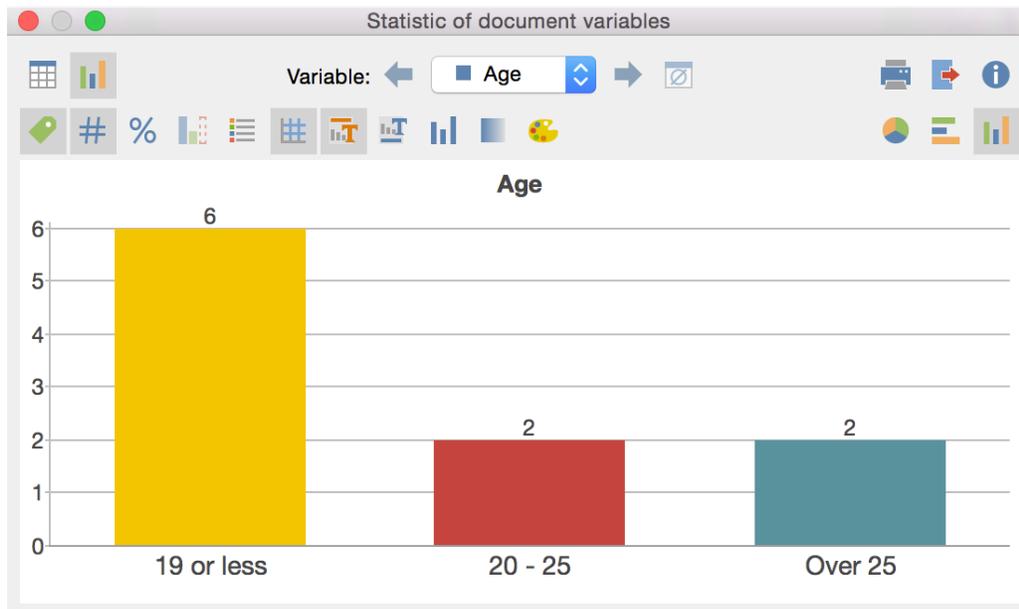
The results window has a toolbar at the top. From here you can:

- 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 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

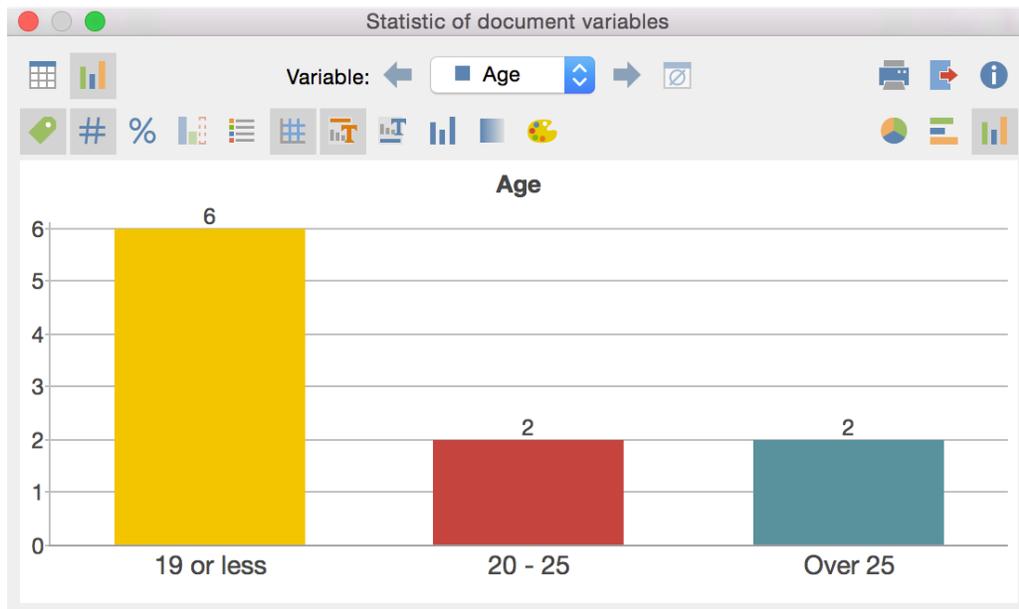
 **Change color scheme** – opens window for color scheme selection.

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 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 and text variables, values set as “Missing values” in the “List of variables” will be treated as missing.
- For text variables, blank fields will also be treated as missing.

Descriptive Statistics

When evaluating numerical variables the **Descriptive statistics**  symbol is appears in in frequency tables. Clicking on the icon produces an output of the usual parameters such including mean value and variance.



20 Summary-Grid

20.1 The Idea behind the Summary Grid

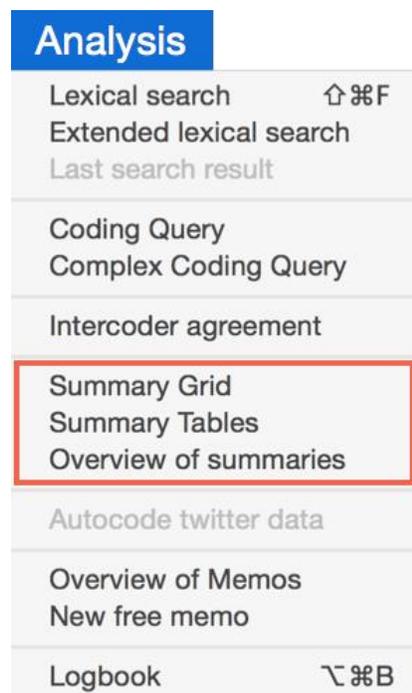
The systematic analysis of texts or other information is often about analyzing the data systematically within a structural framework, summarizing it and then grouping it in different categories.

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 “Summary Tables”) based on the summaries.

These two functions are accessible from the **Analysis** drop-down menu:



Menu item “Summary Grid”

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.

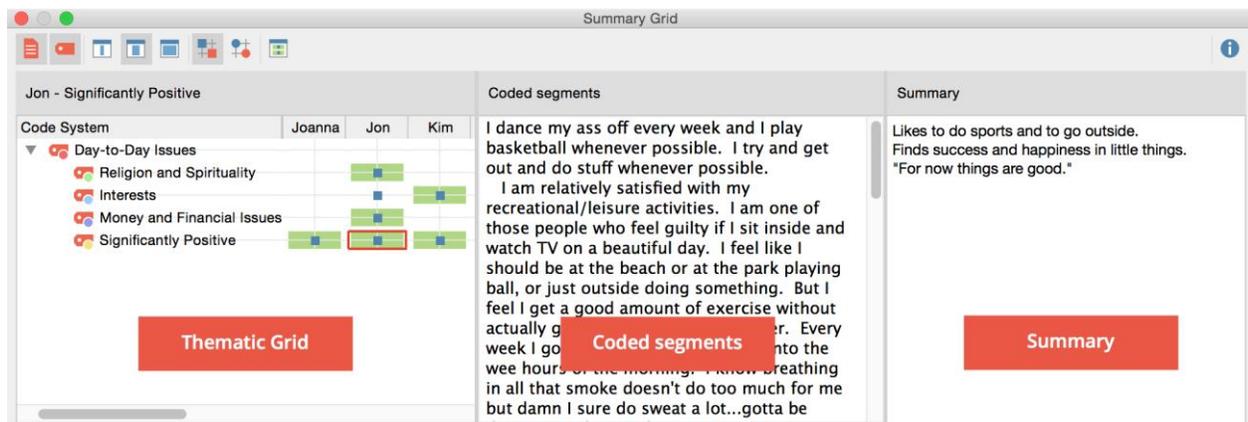
20.2 Creating and Editing Summaries

To create and edit summaries,

- From the main menu, select **Analysis > Summary Grid**,
- Or click the corresponding 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 squares** – existing codes will be symbolized as squares in the left pane.

 **Display nodes as circles** – existing codes will be symbolized as circles in the left pane.

 **Summary tables** – opens the “Summary Tables” window, described below.

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 with the mouse. This way you can easily insert citations in the summary.

20.3 Summary Tables

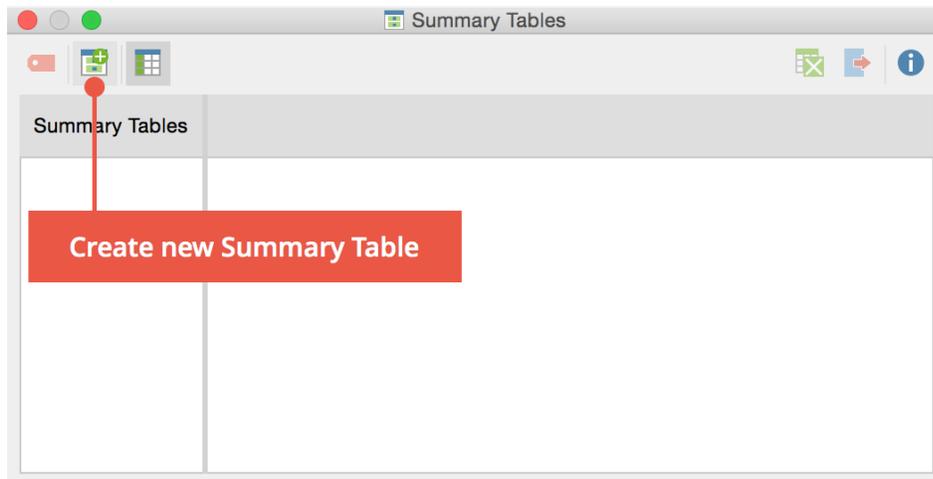
A “Summary Table” is an overview table of summaries and document variables for selected documents and codes. It serves as a compilation of the summaries for selected topics. Summary Tables are a useful tool for presentations and publications.

To create or view Summary Tables,

- select the menu item **Analysis > Summary Tables**

- or click the corresponding button .

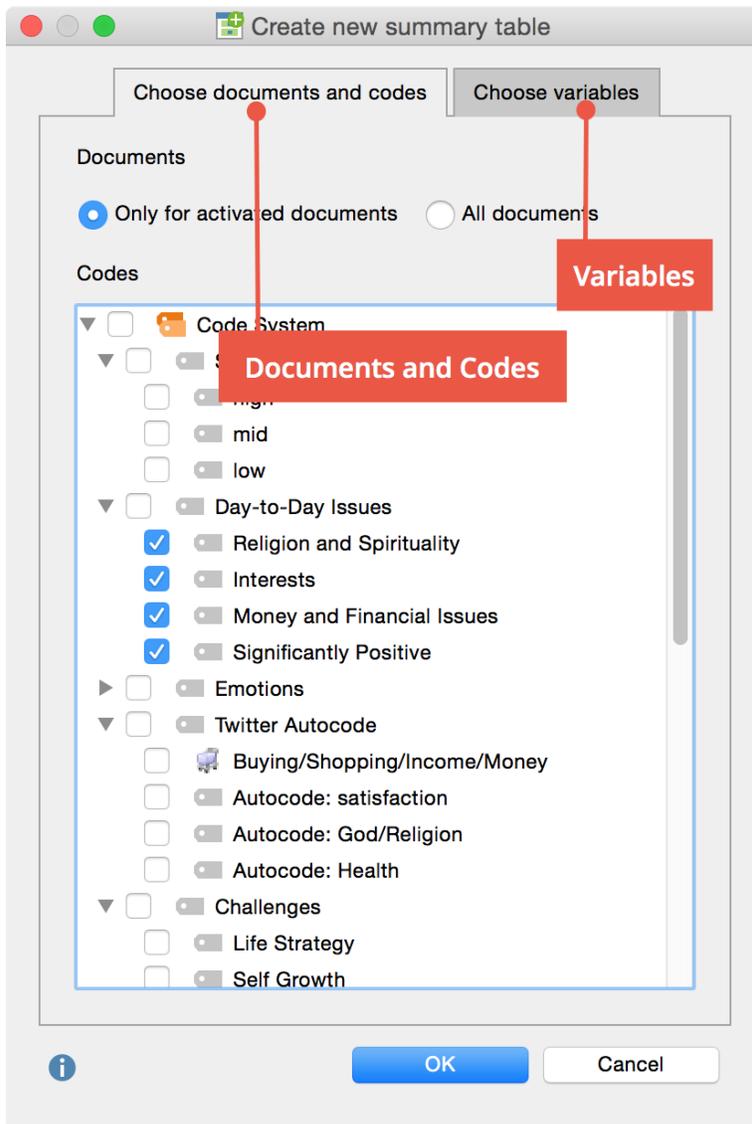
This will open the Summary Tables window. This window is structured similarly to MAXMaps. On the left side you find a list of the Summary Tables you have already created and in the window on the right you can view the Summary Table that is currently opened.



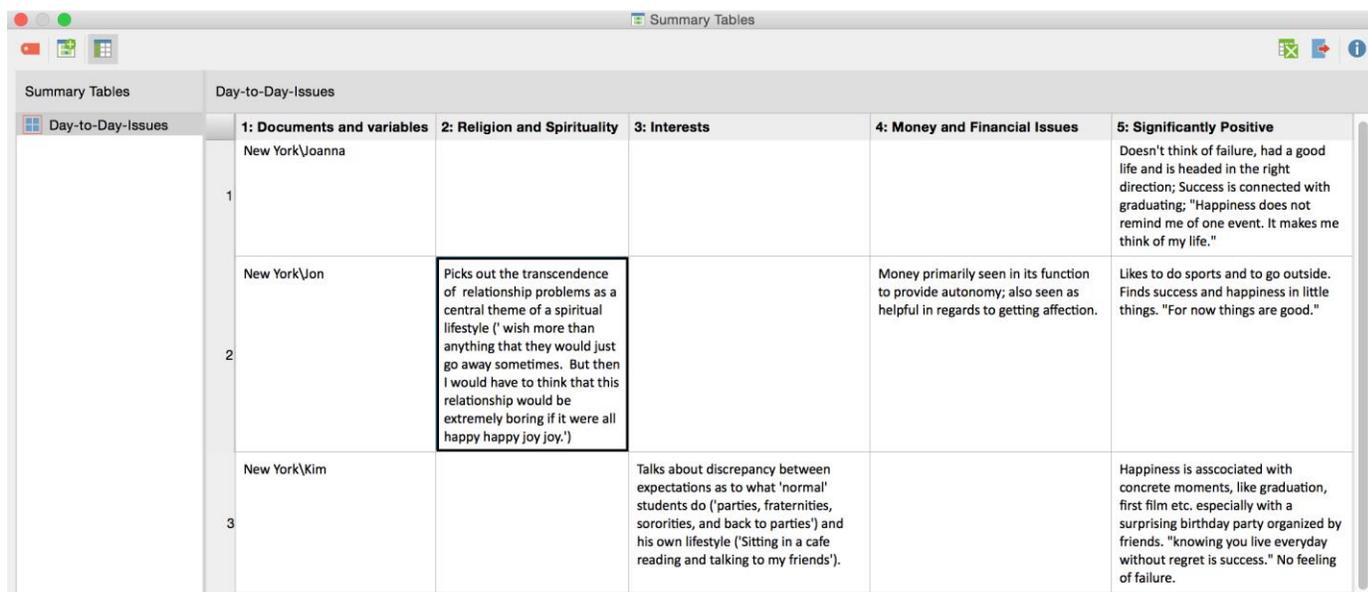
"Summary Tables" window

To create a new Summary Table, click the button  in the toolbar. 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 Summary Table.
2. You can select any number of codes, to be displayed in the columns of the Summary Table.
3. You can choose which document variables should be output as supplementary information. All variables that are placed in the "Variables for first column" pane will appear in the first column with the document name. All variables that are placed in the "Variables in own column" pane will appear in their own columns after the codes.



By clicking **OK**, the table will be created according to the parameters you have chosen:



Summary Tables	Day-to-Day-Issues				
Day-to-Day-Issues	1: Documents and variables	2: Religion and Spirituality	3: Interests	4: Money and Financial Issues	5: Significantly Positive
1 New York\Joanna					Doesn't think of failure, had a good life and is headed in the right direction; Success is connected with graduating; "Happiness does not remind me of one event. It makes me think of my life."
2 New York\Jon		Picks out the transcendence of relationship problems as a central theme of a spiritual lifestyle ('wish more than anything that they would just go away sometimes. But then I would have to think that this relationship would be extremely boring if it were all happy happy joy joy.')		Money primarily seen in its function to provide autonomy; also seen as helpful in regards to getting affection.	Likes to do sports and to go outside. Finds success and happiness in little things. "For now things are good."
3 New York\Kim			Talks about discrepancy between expectations as to what 'normal' students do ('parties, fraternities, sororities, and back to parties') and his own lifestyle ('Sitting in a cafe reading and talking to my friends').		Happiness is associated with concrete moments, like graduation, first film etc. especially with a surprising birthday party organized by friends. "knowing you live everyday without regret is success." No feeling of failure.

Summary Table

The Summary Table lists all summaries for the selected codes.

In the first column of the Summary 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 Summary Table.

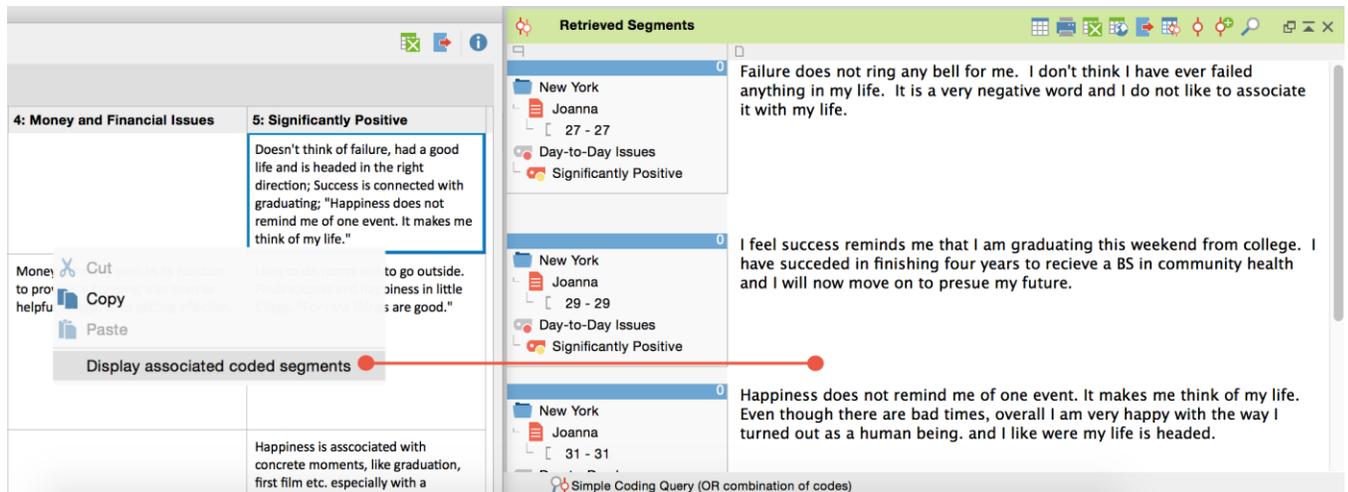
All table functions of MAXQDA are available:

- You can change the order of columns by clicking and dragging with the mouse.
- 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 Summary Table individually, that means you can modify the summaries displayed. Changes in the content of the Summary Table will also affect the summaries. This means that the content of the corresponding cell in the Summary Grid will also change accordingly. You can also change the variable values of the variables that are displayed in their own columns – this has no effect on the document variables themselves.

Each cell of the Summary 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 Summary Table and choosing "Display associated coded segments."



The screenshot displays the MAXQDA interface. On the left, a Summary Table is visible with two columns: '4: Money and Financial Issues' and '5: Significantly Positive'. The '5: Significantly Positive' column contains text excerpts. Below the table, there are standard editing icons (Cut, Copy, Paste) and a button labeled 'Display associated coded segments'. On the right, the 'Retrieved Segments' panel shows three segments, each with a text excerpt. A red line connects the 'Display associated coded segments' button to the Retrieved Segments panel, indicating that clicking the button will display the segments associated with the selected text in the table.

Interactive cells in the Summary Table

Transforming a Column of the Summary Table as a Document Variable

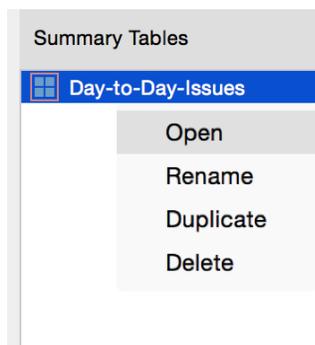
Let's say one column of your Summary Table contains short and similar summaries for a topic in an interview study. This analytic work can be easily used as a document variable in MAXQDA, e.g. to activate interviewees where you have written the same summary: Right click on the column heading and chose **Transform into document variable**. MAXQDA will now create a new document variable that contains the summaries as values and will be named as the column. If the variable already exists, MAXQDA will add a number to the name. Please note that the values will be shortened to 63 characters. The column in the Summary Table remains.

Swap Rows and Columns of a Summary Table

You can use the icon  in the toolbar of the Summary Table to rotate the view by 90°, which means you swap the rows and the columns for display. The documents will be displayed in the columns then and the codes (and the variables displayed in an own column) in the rows.

Opening, Deleting, Duplicating and Renaming Summary Tables

To open an existing Summary Table, double-click on the name of the Summary 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.



The screenshot shows the 'Summary Tables' panel in MAXQDA. The table 'Day-to-Day-Issues' is selected. A context menu is open over the table name, listing the following options: 'Open', 'Rename', 'Duplicate', and 'Delete'.

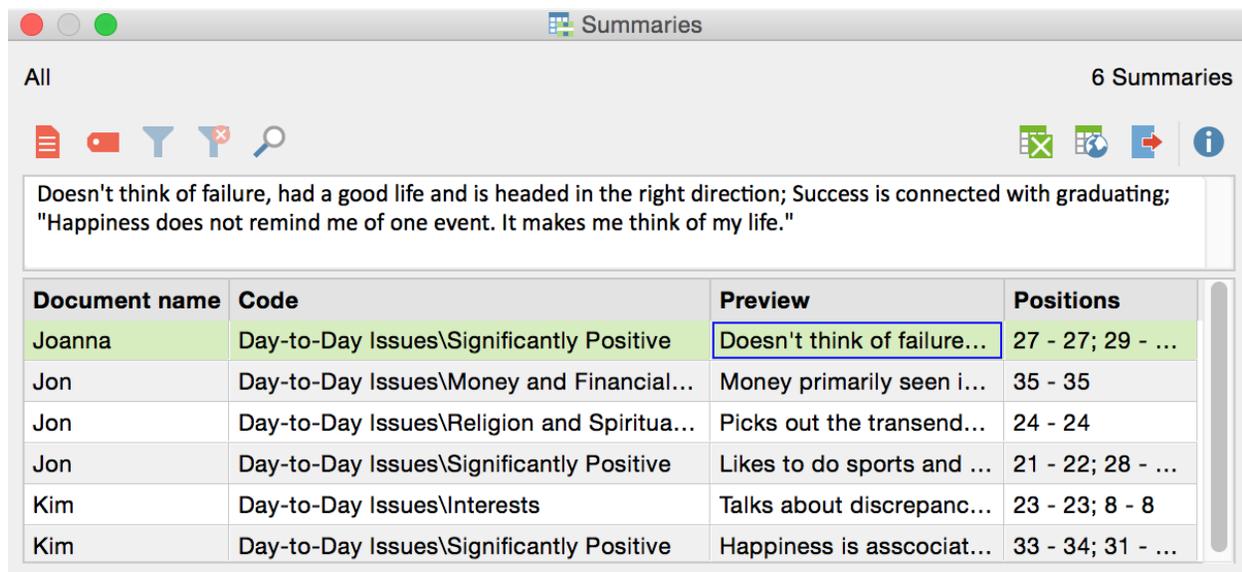
Context menu on a table name

Note: The Summary Table is dynamically linked to MAXQDA data. As soon as you open a Summary Table, it scans your project for deleted documents, codes or variables, so that they can be removed or updated if necessary. Deleting variables in the project or changing variable values not only affects the first column, but also the variables in their own columns.

20.4 Overview of Summaries

The "Overview of Summaries" allows quick access to the summaries of selected documents. It is accessible from the context menu at all levels of the Document System. Right-click on a document, document group, document set, or the root of the Document System and select "Overview of Summaries." A listing in table form will appear, as is typical in MAXQDA, and which contains all existing summaries of the documents in question, displayed in the upper pane. As usual, the context of the listing will be noted in the upper left corner.

The "Document" and "Code" columns contain information on the "node" from which the summary is derived, the "Preview" column contains the first 63 characters of the summary, and the "Position" column lists all the positions from which the underlying coded segments originate. The figure below illustrates the first summary from the document "Joanna" and is part of the code "Significantly Positive." In this document two text segments were coded with this code, namely in paragraphs 27 and 29.



Document name	Code	Preview	Positions
Joanna	Day-to-Day Issues\Significantly Positive	Doesn't think of failure...	27 - 27; 29 - ...
Jon	Day-to-Day Issues\Money and Financial...	Money primarily seen i...	35 - 35
Jon	Day-to-Day Issues\Religion and Spiritua...	Picks out the transend...	24 - 24
Jon	Day-to-Day Issues\Significantly Positive	Likes to do sports and ...	21 - 22; 28 - ...
Kim	Day-to-Day Issues\Interests	Talks about discrepanc...	23 - 23; 8 - 8
Kim	Day-to-Day Issues\Significantly Positive	Happiness is associat...	33 - 34; 31 - ...

Overview of summaries

21 Mixed Methods Functions

21.1 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.

Functions that link documents and variables, for example themes from qualitative interview material with the variables from standardized interviews, are available in the **Mixed Methods** drop-down menu:

- **Activate by document variables** – lets you activate documents to be included in the Coding Query 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.
- **Similarity analysis for documents** – selected documents are analyzed on the basis of existing coded segments and document variables for their similarity, and the results are presented in a similarity or distance matrix.
- **Joint Displays** – MAXQDA offers a variety of displays that integrate qualitative and quantitative data and that are related to often used mixed methods designs. "Side-by-side displays" array qualitative and quantitative results, "Qualitative themes for quantitative groups" display coded segments or summaries in a table for groups that have been defined by document variable values, and the display "Statistics for qualitative groups" divides documents into groups by the documents' variable values and compares mean, standard deviation and relative frequencies for selected variables.

In the “Code System” window there are functions available, that allow you to use the code frequencies for each document as document variables:

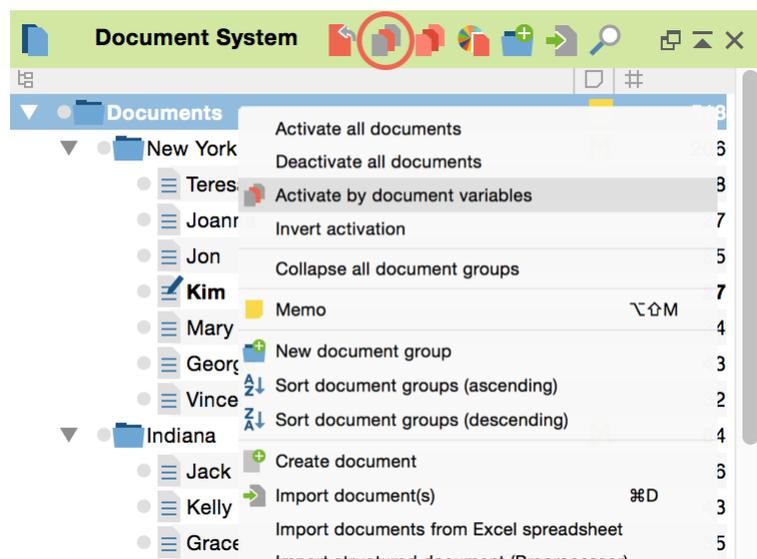
- **Transform code into document variable or categorical document variable** – Codes can be converted into a document variable that specifies how often the code occurs in the document or which subcode occurs most frequently in a document. The latter is particularly useful for evaluative content analysis.

21.2 Activation by Document Variable: Variables as Selection Criteria for the Coding Query

The Coding Query 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 are activated manually in the “Document System.” For example, you can activate all the documents in a project, the documents of a specific document group, or individual documents based on specific criteria. This type of selection is sufficient so long as you wish to retrieve only coded segments belonging to a specific code. 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.

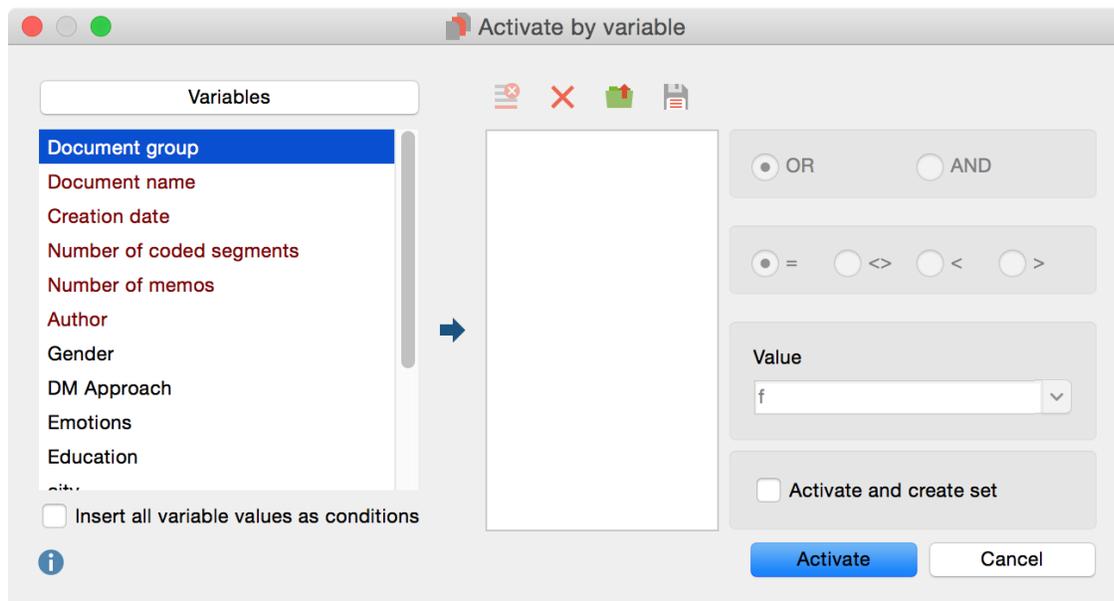


Accessing the function from the context menu



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 documents 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 conditions 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:

Double-click on the variable **Criticism** from the list of variables. You will now see the following text in the formula window:

[Criticism] = <empty>

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. When working with variables of type "Boolean" you can use "0" for "false" and "1" for "true".

Tip: It is possible to specify the condition that a non-numerical variable value should be <empty>. Then all documents to which no variable value was assigned will be selected.

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.

If you want to activate documents frequently based on the same criteria, it is recommended that you save the activation model as a document set. To do so, select the option **Activate and create set** from the dialog window. MAXQDA will then activate not only all the documents that meet the defined variable conditions (formulas), but also create a document set containing the activated documents. This new document set can be activated at any time in the Document System, without having to call up the function for automatic activation via document variables.

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**  symbol 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:

Double-click on the variable **Gender** from the list of variables.

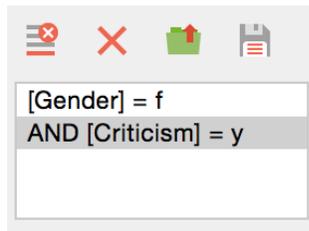
The new formula should now look like this:

[Gender] = <empty>

- Enter the value **f** in the dialog field, or select it from the list of values.
- MAXQDA automatically inserts the “OR” operator. To use the “AND” operator instead, select the appropriate option in the right-hand pane. According to the schema, any number of other logical combinations can be added. Click the **Activate** button to begin.

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

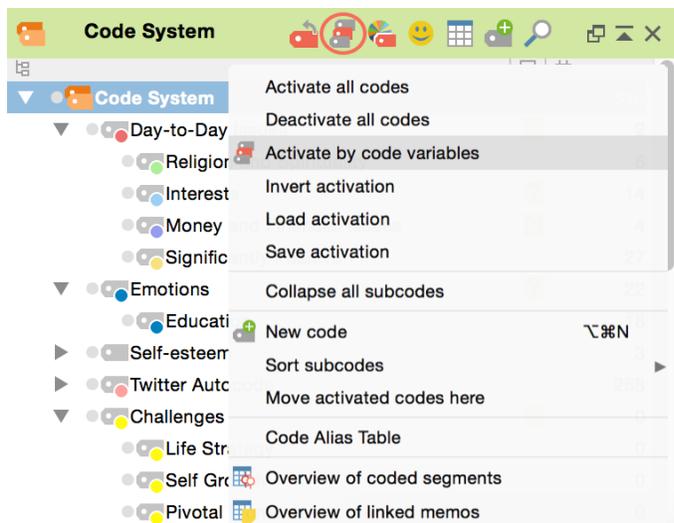
Deleting Formulas

It is possible to go back and delete a formula at any time:

- Click on the row you wish to delete.
- 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

21.3 Crosstab

The Crosstab 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.

Crosstab 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.

	Gender = m	Gender = f	Total
Day-to-Day Issues	1	1	2
Religion and Spirituality	5		5
Interests	4		4
Money and Financial Issues	1		1
Significantly Positive	6	4	10
SUM	17	5	22
N (Documents)	2	3	5

Crosstab example based on gender

The **Crosstab** function can be accessed from the **Mixed methods** menu or from the context menu of a code.

The Crosstab toolbar at the top of the window offers the following in addition to the usual export functions:

-  **Quote Matrix** – Displays the coded segments as a matrix in Excel.

 **Number of segments** – Displays absolute frequencies, meaning the number of segments of the respective codes for the variable form of the respective column.

 **Row percentage** – The percentage share of the cell calculated across the row (horizontal percentage calculation).

 **Column percentage based on the sum of coded segments (row "SUM")** – The percentage share of the cell calculated across the column (vertical percentage calculation).

 **Column percentages based on the number of documents "N (documents)"** – The column percentage in terms of the number of documents in the column (the option Count hits per document only once will be selected automatically).

 **Count hits per document only once** – The unit of analysis is set to Document. Each document is analyzed based only on whether the code has been assigned or not; the frequency with which a code occurs within a document is not taken into account.

 **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 Crosstab 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.

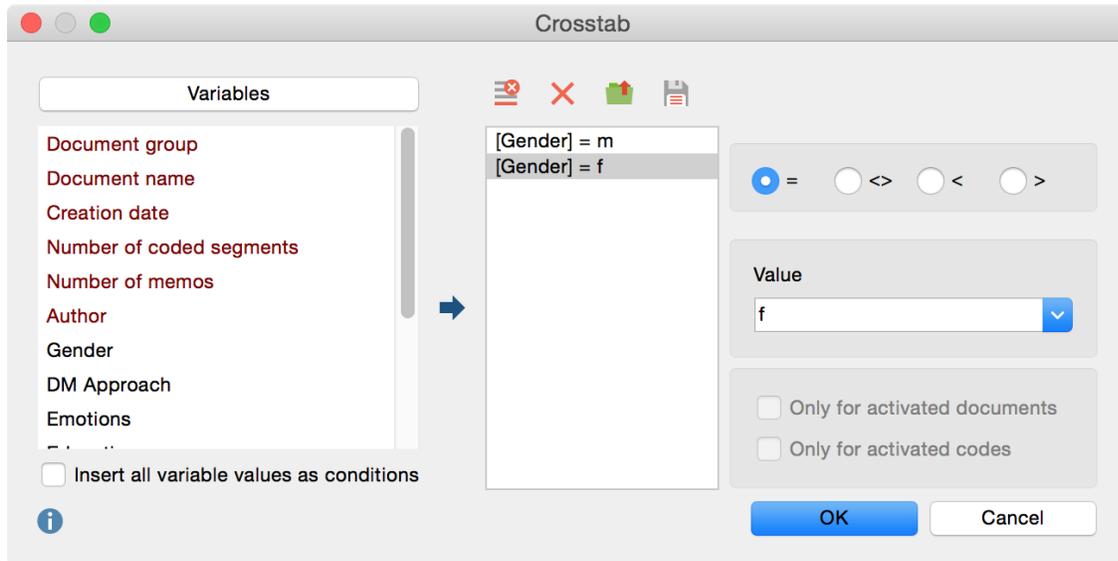
Selection of Codes and the definition of Columns in Crosstabs

As usual in MAXQDA, the selection of codes is done via activation. The selection should be completed before using the Crosstabs function, otherwise all codes will be displayed in the Crosstab.

The definition of the columns is done by defining appropriate variable conditions (formulas) in the dialog window, which is similar to the "Activate by document variables" dialog window.

After activating codes and selecting Crosstab, you will have the option to create logical conditions that will be used to assign documents to each column. The window is broken up into the following sections:

- A list of all the document variables in the project.
- A section for the definition of logical conditions (formulas).
- Buttons for selecting operators and values.
- Buttons for opening and saving logical conditions (formulas).
- Further functions, for example starting Crosstabs calculation or cancelling the action.



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 wish to record all occurrences of a variable in the table (e.g. gender) as a column in the crosstab, you would follow these steps:

1. Select the option Insert all variable values as conditions.
2. Double-click the desired variable in the left pane of the window.

MAXQDA then lists the formulas that you have set up in the middle pane of the window. In the example, it would look as follows:

[Gender] = Female

[Gender] = Male

The Crosstabs created in this way would look as follows:

	Gender = m	Gender = f	Total
Day-to-Day Issues	1	1	2
Religion and Spirituality	5		5
Interests	4		4
Money and Financial Issues	1		1
Significantly Positive	6	4	10
SUM	17	5	22
N (Documents)	2	3	5

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 so, click on the element you wish to remove from the list in the Formula row and click the **Delete**  symbol.

You can also compare groupings based only on specific variable values by not checking the box to **Insert all variable values as conditions**. Instead, you would simply create a formula and add single values by following these steps:

1. Double-click on the desired variable in the list of variables to set it as a condition (formula).
2. 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.
3. Repeat the first three steps to set up each column of the Crosstabs.

When you click **OK**, the table will be displayed.

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.

21.4 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 where my life is headed.</p> <p><i>New York/Joanna: 34 - 35 (100)</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 - 12 (100)</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 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 - 11 (100)</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 - 17 (100)</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 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.</p> <p><i>New York/Silvia: 42 - 42 (100)</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 - 12 (100)</i></p>

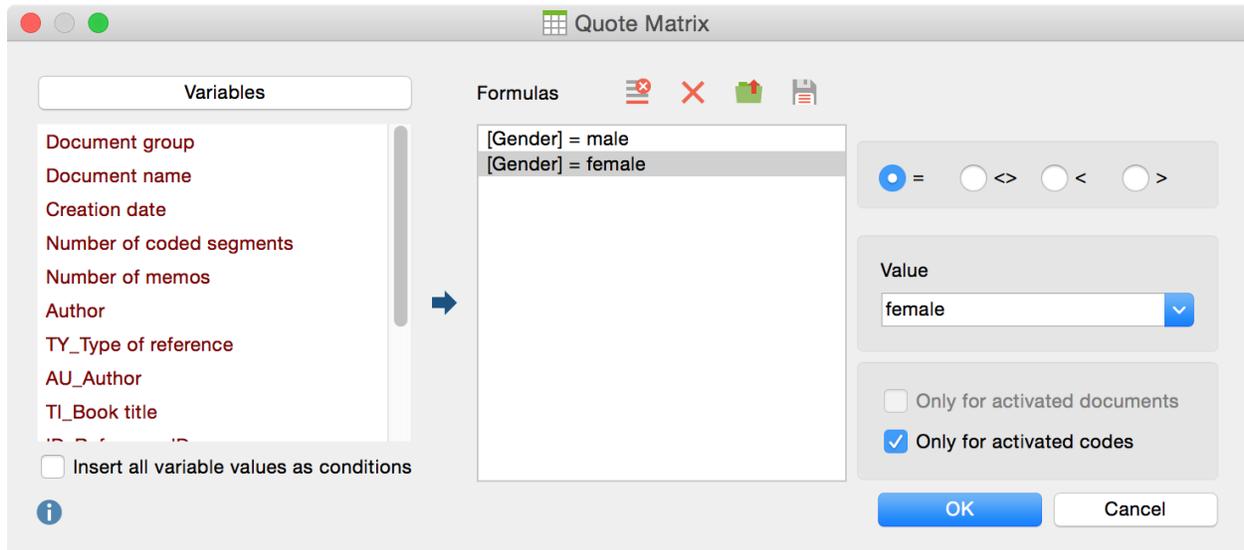
Example of a Quote Matrix with source references (document, position, weight)

MAXQDA creates a table that shows the same coded segments that would be numerically listed in the Crosstab, but here they are displayed 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 the resulting table would contain only the segments themselves and no source data.

To create a Quote Matrix, proceed as follows:

1. First, activate the codes you wish to include in the Quote Matrix.

- From the main menu, select **Mixed Methods > Quote Matrix**. The following dialog window will open, in which you can define the columns of the matrix:



Defining columns for the Quote Matrix

When you click **OK**, a dialog window will open in which you can create a file name and select the location where the Quote Matrix will be saved. The matrix can be saved as an Excel, HTML or RTF file. For a matrix with many columns, Excel format is recommended, for a matrix with few columns, RTF format is recommended. The file will open automatically upon export.

Tip: You can also generate a Quote Matrix directly from the Code Matrix Browser or Code Relations Browser or Crosstab by clicking the **Quote Matrix** symbol.

21.5 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):

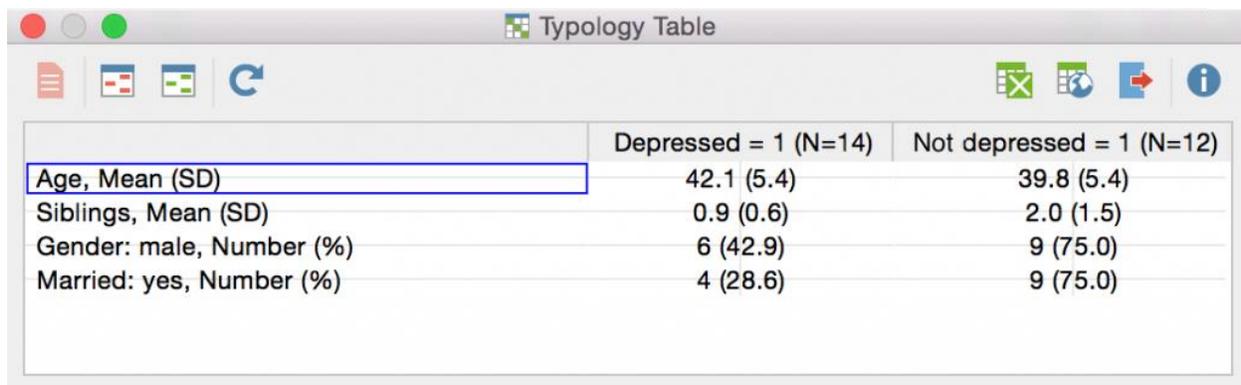
Characteristics	Physician Rated Patient Depressed n = 27	Physician Rated Patient Not Depressed n = 21	P Value
Sociodemographic characteristics			
Age, mean, No. (SD)	73.0 (5.3)	77.1 (5.3)	.012
Women, No. (%)*	21 (79)	15 (71)	.623
African American, No. (%)*	10 (39)	12 (57)	.173
Education less than high 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 text or numerical variables. The columns follow the pattern of Crosstabs, meaning the values of any categorical variables can be selected.

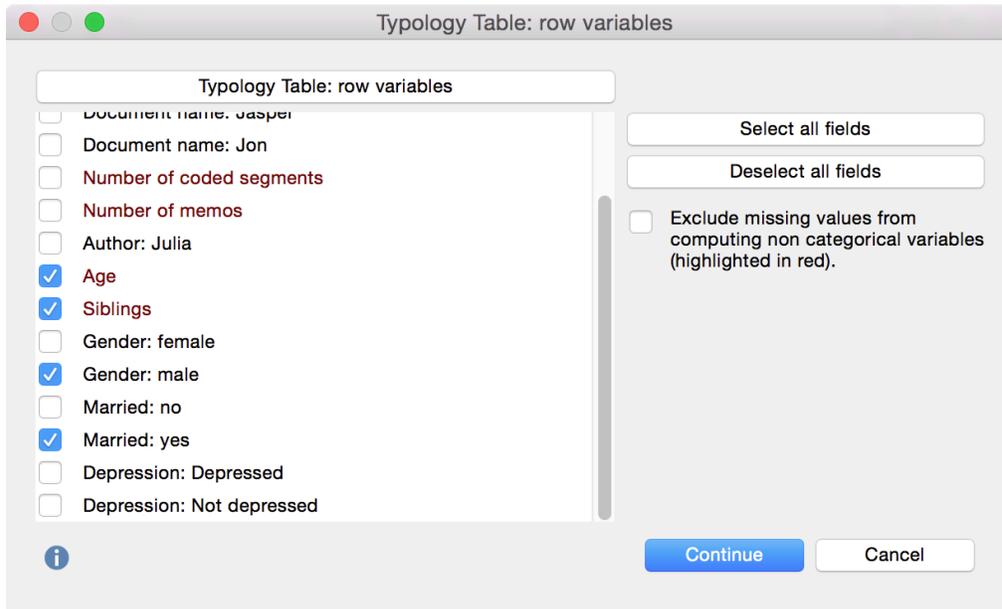


	Depressed = 1 (N=14)	Not depressed = 1 (N=12)
Age, Mean (SD)	42.1 (5.4)	39.8 (5.4)
Siblings, Mean (SD)	0.9 (0.6)	2.0 (1.5)
Gender: male, Number (%)	6 (42.9)	9 (75.0)
Married: yes, Number (%)	4 (28.6)	9 (75.0)

Example of a Typology Table

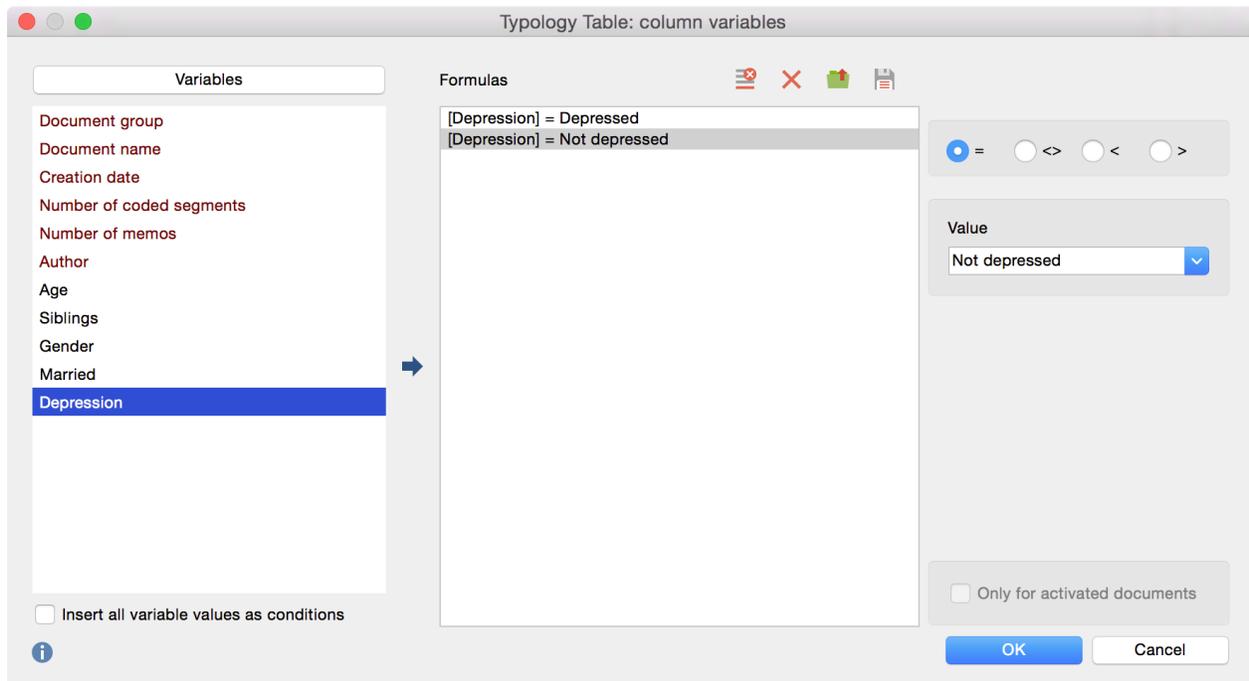
To create a Typology Table, proceed as follows:

1. Select **Mixed Methods > Typology table** from the main menu.



Select variables in the rows for the Typology table

2. For categorical variables, all respective variable values are listed in the dialog window. For non-categorical (metric) variables, the variables themselves are listed. For easy differentiation, non-categorical variables appear in red. Check the variable values and variables you would like to include in the Typology table and to compare between groups.
3. Select the **Exclude missing values** option when the missing values of non-categorical variables should be ignored. This will usually be the case.
4. When you click **Continue** a second dialog window will appear in which you can define the columns of the Typology table, and where you can specify the elements that should be compared with one another.



Defining the columns of a Typology table

5. Create a variable condition (formula) for each desired column, for example “Depressive = Yes” and “Depressive = No”. The quickest way to do so is by double-clicking the variable in the variable column. When you click **OK**, MAXQDA will display the Typology table.

The Toolbar

At the top of the typology table you will find a toolbar that offers the following functions:

 **Highlight lowest value per row** – for better interpretation of the results the value highest in row is highlighted in green.

 **Highlight highest value per row** – for better interpretation of the results the value lowest in row is highlighted in red.

 **Refresh** – updates display via recalling the function.

 **Open as Excel** – generates an Excel table containing the content of the typology table. It will be opened with the assigned program for Excel files directly.

 **Open as HTML** – generates a HTML table containing the content of the typology table. It will be opened with the standard browser directly.

 **Export** – exports the typology table in Excel format or as a Website. It may also be exported as an image file.

Interactivity

The typology table is linked to the data in MAXQDA interactively:

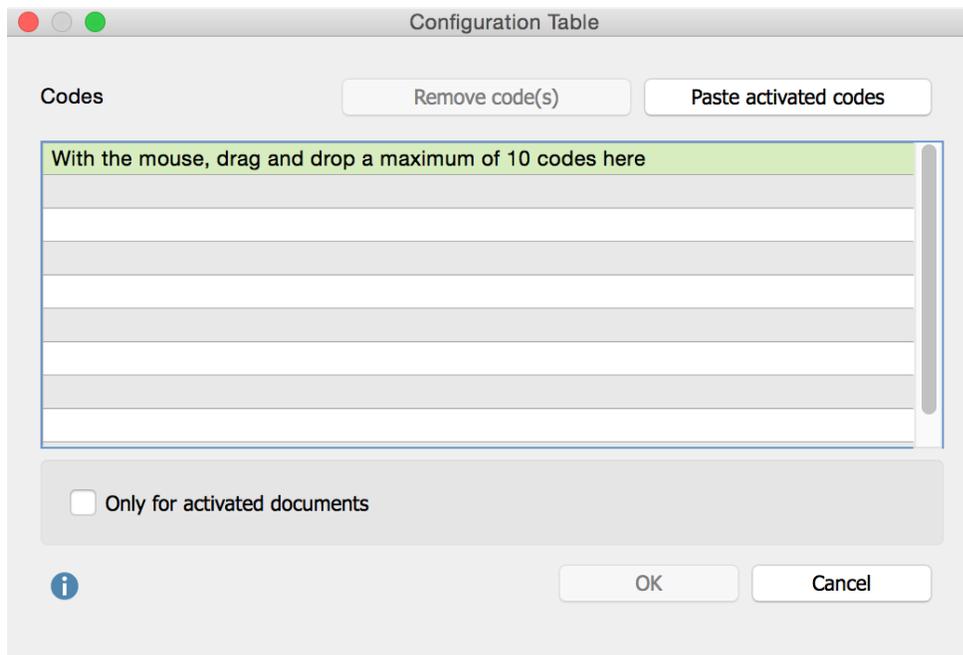
- Double click on a cell, that shows the number of documents (and no mean value), to activate these documents in the „Document System.“
- Double click on a cell of of the first column, where the cell shows a variable value, to activate all documents that fit the clicked variable criteria.

21.6 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 10 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 ten codes only the first ten will be inserted in the Code System. 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**.

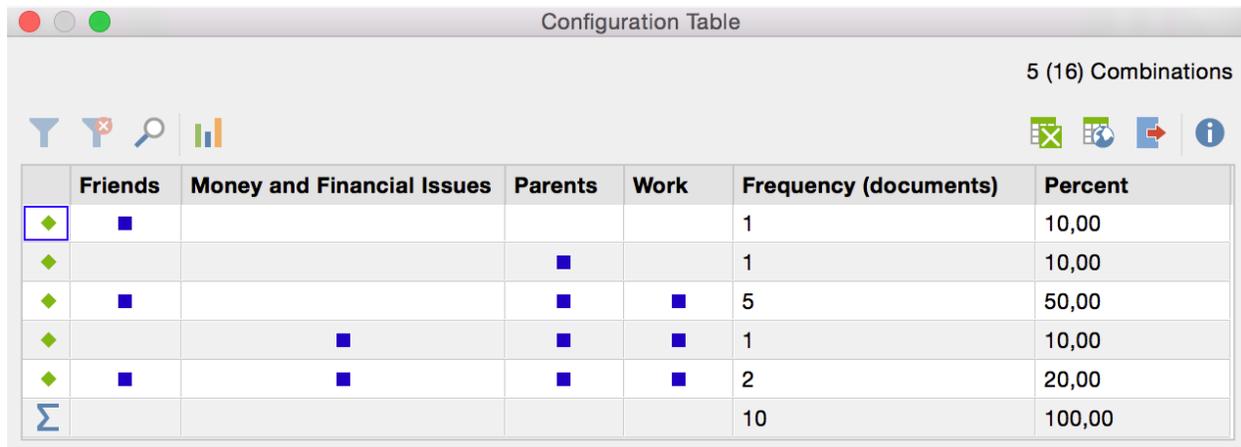
Click **OK** to view the result of the evaluation. It is made up of two results tables: the Configuration Table and the Configuration Table – detail view.

1. Results Table: Configuration Table

In this table the columns contain the codes you have chosen as well 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:



	Friends	Money and Financial Issues	Parents	Work	Frequency (documents)	Percent
◆	■				1	10,00
◆			■		1	10,00
◆	■		■	■	5	50,00
◆		■	■	■	1	10,00
◆	■	■	■	■	2	20,00
Σ					10	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.

Tip: The Configuration Table is interactive. When you double-click on a cell containing a blue square, all of the corresponding coded segments will appear in the Retrieved Segments window.

If you click on the Statistic  symbol, a frequency table in which all existing code combinations and their frequencies are listed. In the <no codes> row you can see the number of analyzed documents in which none of the selected codes occur.

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:

Document gro...	Document name	Friends	Money and Fi...	Parents	Work	Sum
Indiana	Grace	■		■	■	3
New York	George	■	■	■	■	4
Indiana	Jack	■				1
New York	Joanna	■		■	■	3
Indiana	Kelly	■	■	■	■	4
New York	Jon		■	■	■	3
New York	Kim	■		■	■	3
New York	Mary	■		■	■	3
New York	Teresa			■		1
New York	Vincent	■		■	■	3

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.

Tip: The detailed view of the Configuration Table is interactive. Double-clicking on a row activates the document in this row as well as all analyzed codes which occur in the document. The corresponding coded segments will be displayed in the Retrieved Segments window.

21.7 Similarity Analysis for Documents

The Similarity Analysis for documents can be used to check the similarity or dissimilarity of various documents in terms of code frequency. The values of document variables can also be included.



Starting the Similarity Analysis

1. Activate all documents you would like to include in the Similarity Analysis.
2. It is also helpful to activate all codes you wish to use for determining similarity.
3. From the main menu, call up **Mixed Methods > Similarity analysis for documents**. A window will appear that contains all previously created similarity and distance matrices.
4. Click on the **New Similarity/Distance matrix**  symbol to begin the similarity analysis.

Setting the parameters for the analysis

A dialog window will appear in which you can select the codes and variables and specify the type of analysis.

The dialog window titled "New similarity/distance matrix" contains the following elements:

- Codes section:**
 - Buttons: "Remove code(s)" and "Paste activated codes"
 - Code list: Interview Guide Topics (highlighted), Health, Overall, Recreation, Home Life, Relationships, Work Issues
 - Similarity measure dropdown: Simple matching, Jaccard, **Kuckartz & Rädiker zeta** (selected), Russel & Rao, Squared euclidean distance
 - Radio buttons:
 - Existence of code -- similarity measure:
 - Code frequency -- distance measure:
- Document variables section:**
 - Text input field: "Integrate variables ..."
 - Radio buttons:
 - Set missing values to 0
 - Ignore documents with missing values
- Summary:**
 - Chosen codes: 7
 - Chosen variables: 0
- Options and Buttons:**
 - Checkbox: Only for activated documents
 - Information icon (i)
 - Buttons: OK, Cancel

Setting options for the analysis

In the upper section, you can add the codes you wish to include in the analysis. You can add all activated codes directly via the **Paste activated codes** button.

Next, select the type of analysis:

Existence of code – Generates a similarity matrix that considers only whether the selected codes occur in the document or not.

Code frequency – Generates a distance matrix that takes the distance of individual codes into consideration.

Similarity Measures with the Option “Existence of Code”

To calculate similarity, various options are available. All of the calculations are based on a four-field table of the following type that is generated for each paired combination of documents (in the background):

		Document A	
		Code/Variable value <i>exists</i>	Code/Variable value <i>does not exist</i>
Document B	Code/Variable value <i>exists</i>	a	b
	Code/Variable value <i>does not exist</i>	c	d

a = Number of codes or variable values that are identical in both documents.

d = Number of codes or variable values that do not exist in both documents.

b and c = Number of codes or variable values that exist in only one document.

The calculation options differ in, among other things, the extent to which field "d", or non-existence in both documents, is considered a match.

Simple match = $(a + d) / (a + b + c + d)$ – Both existence and non-existence are counted as a match. The result is the percentage match.

Jaccard = $a / (a + b + c)$ – Non-existence is completely ignored.

Kuckartz & Rädikers zeta = $(2a + d) / (2a + b + c + d)$ – Existence is counted twice, non-existence once.

Russel & Rao = $a / (a + b + c + d)$ – Only existence is considered a match, but non-existence reduces the similarity.

Distance Measures with the Option “Code Frequency”

To calculate the distance between two documents based on “Code frequency”, the following options are available in which the code frequencies of two documents will be compared:

Squared euclidean distance = The sum of squared deviations (higher deviations will be rated higher as lower ones because of squaring the deviations).

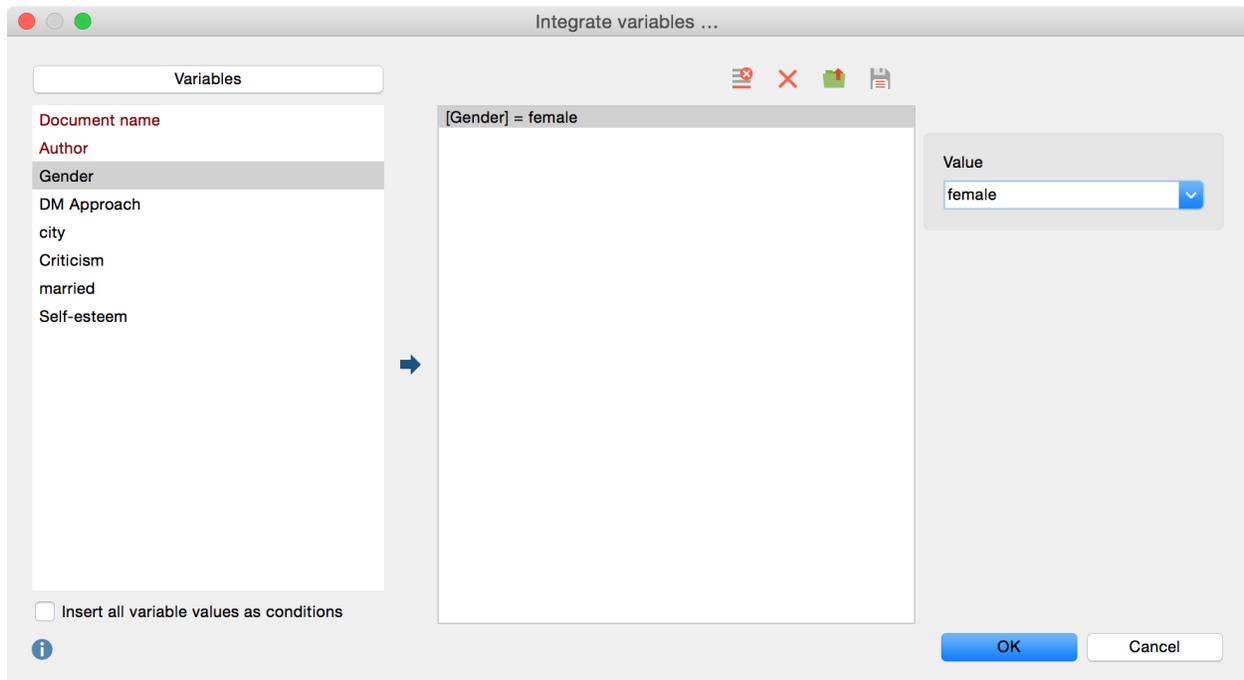
Block distance = The sum of absolute deviations.



Note: Since it is also possible to include variable values in the analysis, all code frequencies and variable values are z- standardized previously beforehand.

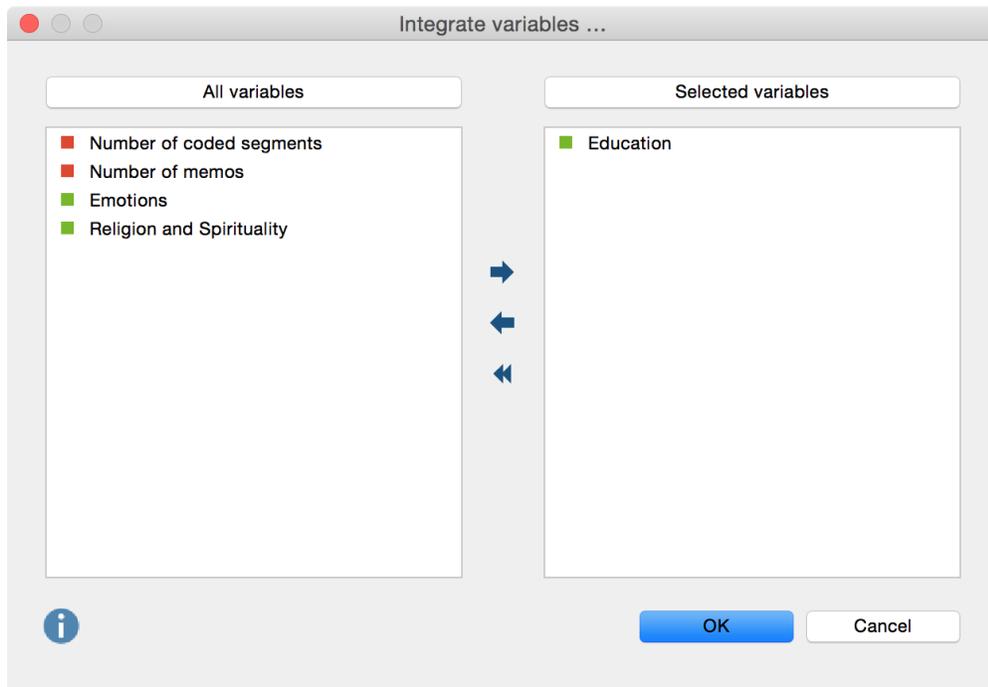
Including Variables

If you want to include variables in addition to codes in the similarity analysis, click the Integrate variables button. If you selected "Existence of code" as the type of analysis, you can then select which variable values MAXQDA should evaluate in the dialog window. If the selected variable value exists in both documents, this is evaluated as a match (type "a"). In the dialog window, only variables of type "text", "true/false", "Date" as well as categorical integers or floating-point numbers are listed.



Selecting variable values in the "Existence of Code" analysis

If you selected "Code frequency" as the type of analysis, another dialog window will appear that contains only integer or floating-point variables, that are not marked as "categorical".



Selecting variable values in the “Code frequency” analysis

Dealing with Missing Variable Values

You can choose how missing values are handled:

Set missing values to 0 – If a variable value does not exist, it is set to 0 due to the z- standardization of the average. In this option, the document with the missing value is taken into account in the analysis.

Ignore documents with missing values – If in a document of one of the variable values is missing, the entire document will be ignored in the analysis.

The Final Similarity or Distance Matrix

The following figure shows a similarity matrix for five interviews. The selected documents are listed both in the rows and in the columns:

Analysis		Similarity matrix(1)				
Name	Document name	Teresa	Joanna	Jack	Kelly	Grace
Similarity matrix	New York\Teresa	1,00	0,00	0,71	0,00	0,00
	New York\Joanna	0,00	1,00	0,38	1,00	1,00
	Indiana\Jack	0,71	0,38	1,00	0,38	0,38
	Indiana\Kelly	0,00	1,00	0,38	1,00	1,00
	Indiana\Grace	0,00	1,00	0,38	1,00	1,00

Similarity matrix for five interviews

The default shadowed color helps to interpret the cells, which in a similarity matrix can have a value of 0 (no similarity) to 1 (identical): The darker the green, the more similar the two documents are in terms of the selected code and variable values. In the figure, for example, you can see that "Joanna" completely coincides with "Kelly" both in their codes and their variable values.

The matrix is sortable: Click on a column header to sort the documents in the rows according to their similarity to the clicked document.

The Similarity Analysis Toolbar

In addition to the usual export options, the following functions can be accessed from the toolbar:

 **New similarity/distance matrix** – Calls up the dialog window where you can create a new matrix.

 **Delete** – Deletes the selected matrix.

 **Names, columns: none, short, full** – Controls column width.

No color highlight – Turns off green highlighting.

 **Color highlight refers to whole matrix** – The highlight color takes into account the value of the cell. The same values will have the same highlight color in the table.

 **Color highlight refers to columns** – In each column, the colors are graduated from white to green. In this way, you can see at a glance which documents are particularly similar to the document in the column. The same values in the matrix may be different colors.

 **Color highlight refers to rows** – In each row, the colors are graduated from white to green. In this way, you can see at a glance which documents are particularly similar to the document in the row. The same values in the matrix may be different colors.

Distance matrices look identical to similarity matrices, however their interpretation is the reverse: The lower the value in a cell, the more similar the two documents are.

The List of Existing Similarity and Distance Matrices

In the left pane of the window you can see the similarity and distance matrices created earlier in the project. They can be renamed with a double-click, or deleted by clicking the **Delete** icon in the toolbar.

Tip: In order to ensure the transparency of the analysis process, the matrix name and selected settings will be displayed in the tooltip if you hover over a matrix name.

21.8 Joint Displays

Joint Displays are used to display, integrate and analyze qualitative and quantitative data and results. MAXQDA offers multiple Joint Displays for commonly used Mixed Methods designs, as described by Guetterman, Creswell and Kuckartz (2015) in their article on using MAXQDA to represent the results of Mixed Methods research using Joint Displays. These designs are:

- Convergent Design (qual. and quan. study parallel)
- Explanatory Design (qual. study after quan.)
- Exploratory Design (qual. study before quan.)

Side-by-Side Display of Results

Definition: The purpose of the Side-by-side display is to array quantitative and qualitative data together.

Side-by-side displays are used to display the results of a qualitative and a quantitative study together by sorted themes. The display is structured like this:

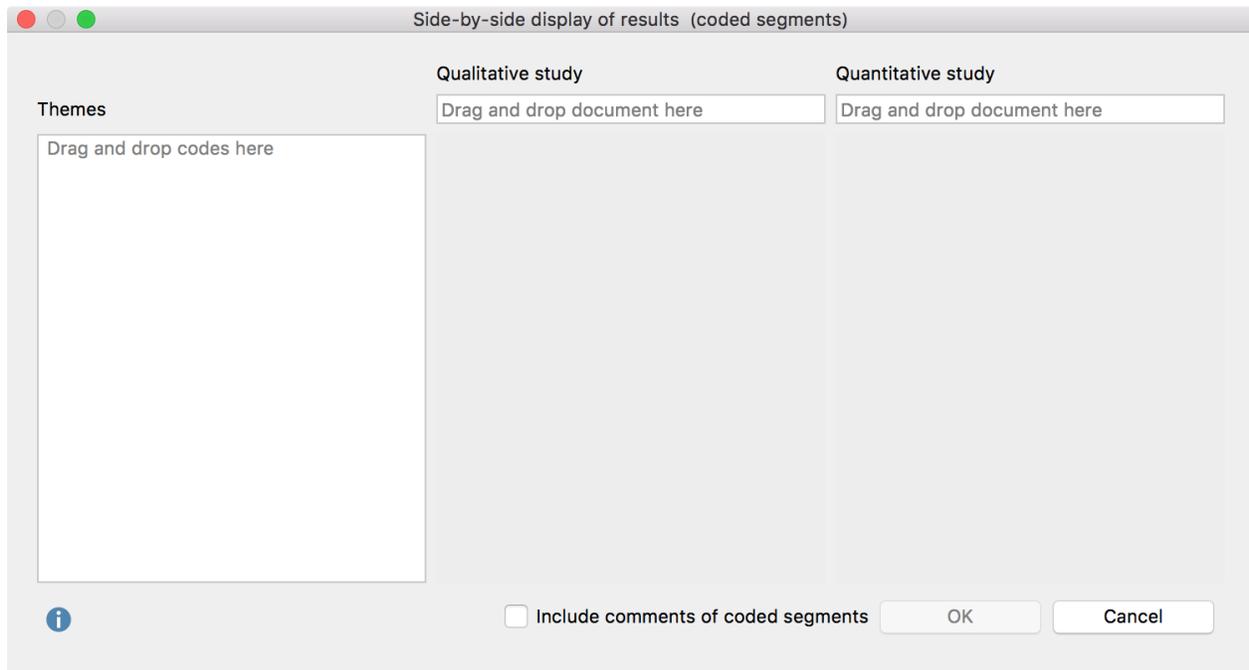
	Qualitative Results (Document A)	Quantitative Results (Document B)
Theme 1 (Code 1)	Coded segments / Summaries	Coded segments / Summaries
Theme 2 (Code 2)	Coded segments / Summaries	Coded segments / Summaries
Theme 3 (Code 3)	Coded segments / Summaries	Coded segments / Summaries

The Side-by-side display has two columns. Each column displays coded segments or summaries for each of the two studies. The rows of the table are made up of themes, in this case your codes.

This Joint Display is especially suitable for convergent designs, where a qualitative and a quantitative study are conducted independently or for the final integration of an explanatory or exploratory design.

Creating Side-by-Side Displays

Open the corresponding entry from the **Mixed Methods > Joint Displays** menu and MAXQDA will open the following dialog:



Creating a Side-by-side display

1. Drag and drop a document from the “Document System” into each of the fields for “Qualitative study” and “Quantitative study” with your mouse. Drag another document into a field to replace a document you already selected.
2. Drag and drop any number of codes from the “Code System” into the “Themes” box on the left. Codes can be rearranged with the mouse. Codes can be removed from the “Themes” box by dragging the code out of the box or selecting the code and pressing **Del key (Windows)** or **cmd-Backspace (Mac)**.
3. Check the box next to **Include comments of coded segments** to include comments. If a comment exists, it will be displayed below the coded segment in the final display. This option is not available for S
4. ide-by-side displays created for summaries.
5. After clicking **OK**, a dialog window will appear where you enter a file name and select the location on your computer to save the display to.

MAXQDA writes the Side-by-side display into a RTF document which can be read by Word and opens the document.

Qualitative Themes by Quantitative Groups

Definition: This joint display integrates data by arraying the qualitative data (segments or summaries) as one dimension and the groups formed by the quantitative data as another dimension.

This Joint Display is used to compare coded segments or summaries for groups of documents. Documents are grouped based on variable values. The following table is a schematic representation of a

Joint Display for the document variable "Occupation". Document groups are created based on their occupational status:

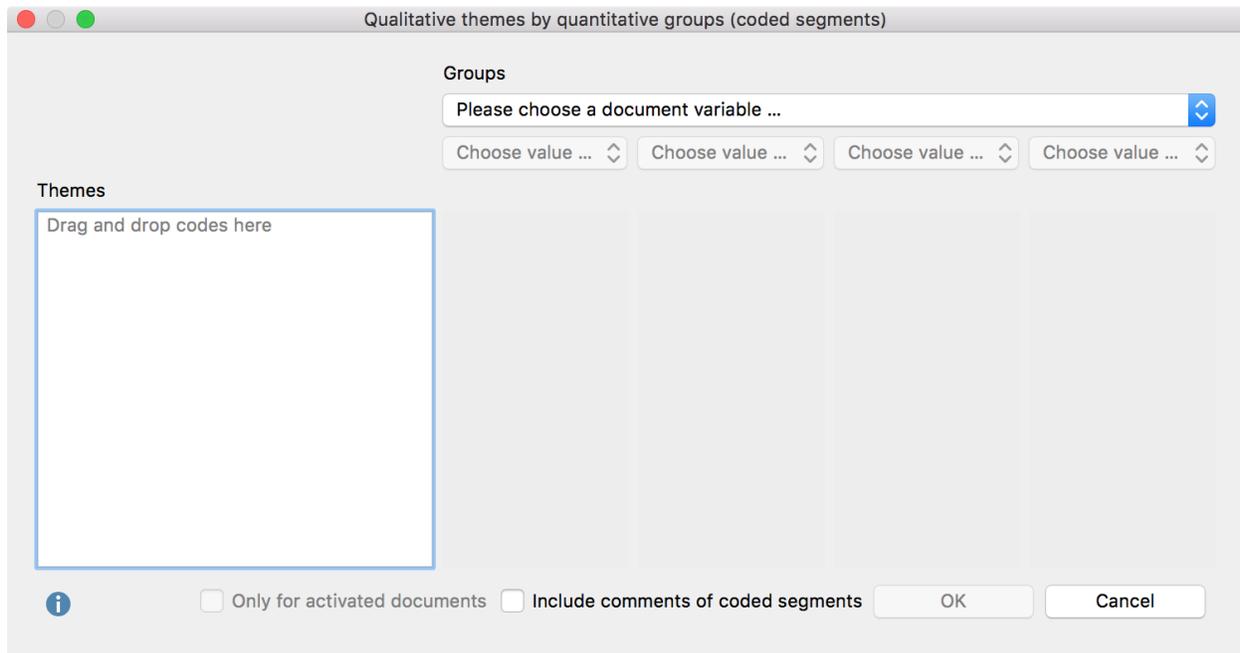
Document variable: Occupation			
	unemployed (N = x documents)	employed (N = y documents)	self-employed (N = z documents)
Theme 1 (Code 1)	Coded segments / Summaries	Coded segments / Summaries	Coded segments / Summaries
Theme 2 (Code 2)	Coded segments / Summaries	Coded segments / Summaries	Coded segments / Summaries
Theme 3 (Code 3)	Coded segments / Summaries	Coded segments / Summaries	Coded segments / Summaries

Each column displays coded segments or summaries from those documents with the corresponding variable value, separated into rows by themes (= codes).

This Joint Display is especially suitable for explanatory designs, but could also be useful for convergent (parallel) designs.

Creating a new display

Open the corresponding entry from the **Mixed Methods > Joint Displays** menu and MAXQDA will open the following dialog:



Creating a Joint Display „Qualitative themes by quantitative groups“

1. Select which groups to compare by selecting a document variable and up to four variable values from the drop down menus. MAXQDA will include all documents with the corresponding variable value in the final columns of the display.

2. You can limit the display to only include currently activated documents by checking the box next to **Only for activated documents**.
3. Drag and drop any number of codes from the “Code System” into the “Themes” box on the left. Codes can be rearranged with the mouse. Codes can be removed from the “Themes” box by dragging the code out of the box or selecting the code and pressing **Del key (Windows)** or **cmd-Backspace (Mac)**.
4. Check the box next to **Include comments of coded segments** to include comments. If a comment exists, it will be displayed below the coded segment in the final display. This option is not available for displays created for summaries.
5. After clicking **OK**, a dialog window will appear where you enter a file name and select the location on your computer to save the display to.

MAXQDA now writes the Side-by-side display into a RTF document which can be read by Word and opens the document.

Statistics by Qualitative Groups

Definition: This joint display integrates a qualitative typology as one dimension with the quantitative data as another dimension.

This Joint Display is used to compare types that have been constructed from the qualitative data by statistical values such as mean, standard deviation, etc. The types are created based on the existence of codes in each document. The following table is a schematic representation of this kind of Joint Display:

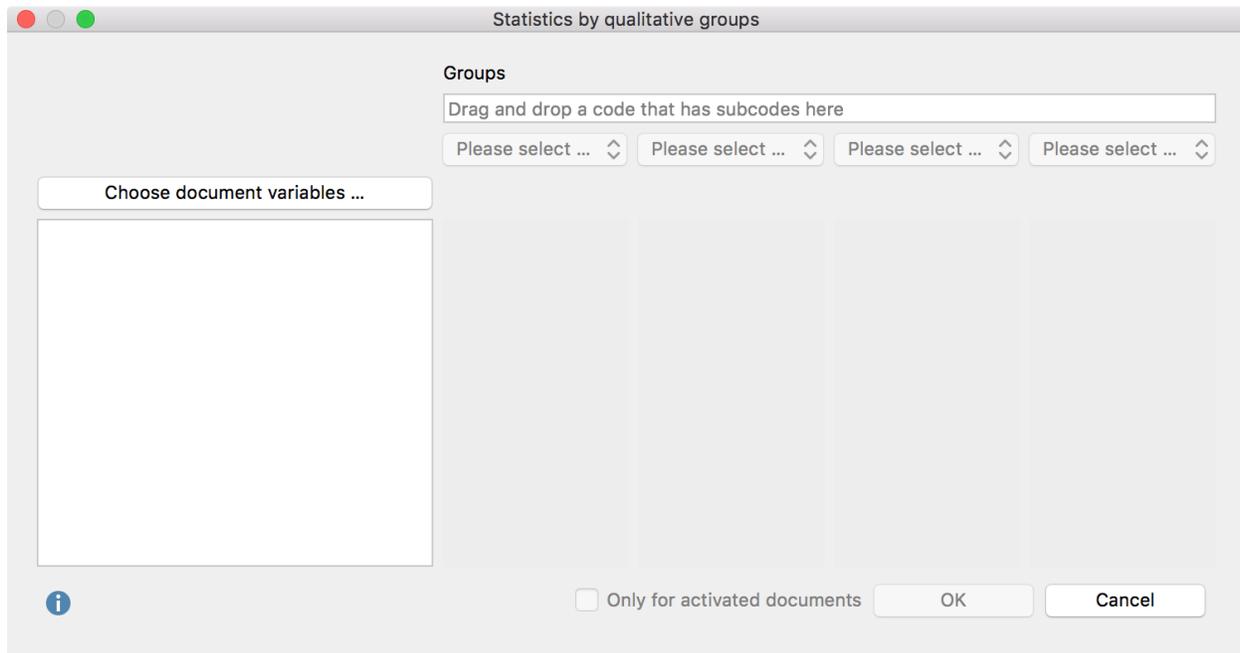
	Coded with ...		
	subcode A	subcode B	subcode C
Variable 1 (numerical)	Mean (Standard deviation)	Mean (Standard deviation)	Mean (Standard deviation)
Variable 2 (categorical)	Total (%)	Total (%)	Total (%)
Documents	N (%)	N (%)	N (%)

Each column holds all documents, in which the selected subcode occurs. It is therefore important that only one of the subcodes is assigned to each document. An example could be an evaluative qualitative text analysis where the code “self assurance” has the subcodes “low,” “medium,” and “high”. If one of the subcodes is assigned to each document, they can now be used to create this Joint Display.

This Joint Display is suitable for convergent (parallel), as well as explanatory and exploratory designs.

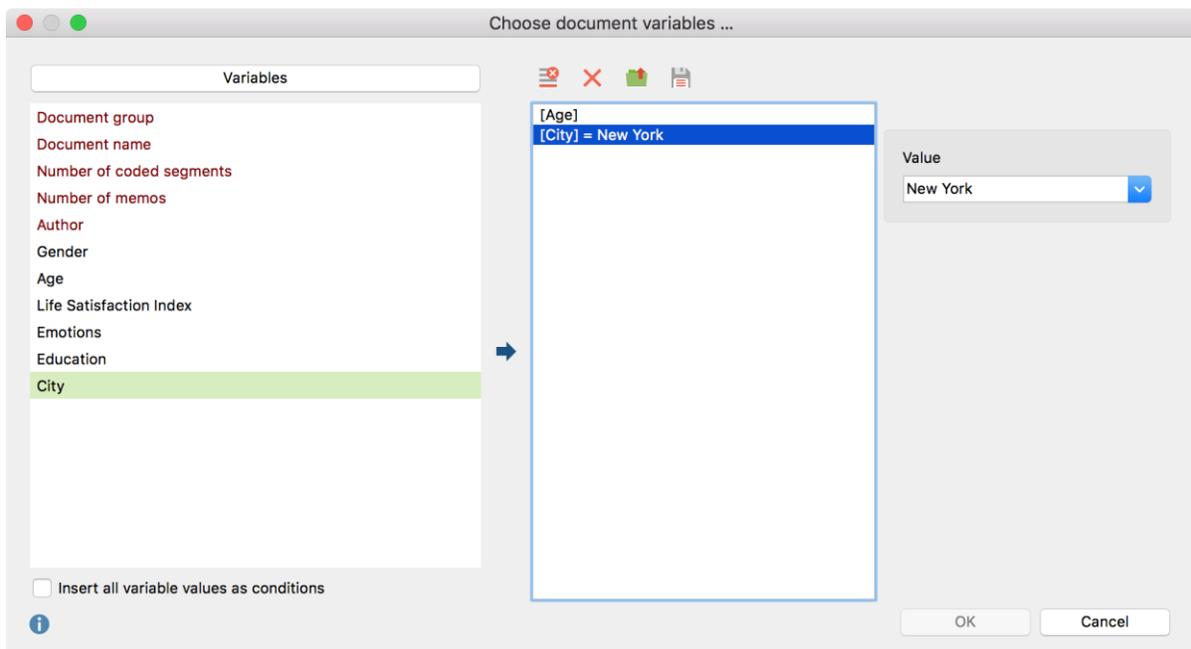
Creating a new display

Open the corresponding entry from the **Mixed Methods > Joint Displays** menu:



Creating a Joint Display „Statistics by qualitative groups“

1. Create groups by dragging a code that has subcodes (but no sub-subcodes) from the “Code System” window to the “Groups” field at the top of this window. Select up to 4 subcodes from the drop down menus below.
2. You can limit the display to only include currently activated documents by checking the box next to **Only for activated documents**.
3. Click the “Choose document variables...” button to call up the variable selection window. Select which variable values to include for categorical variables.



Choose document variables for the Joint Display „Statistics by qualitative groups“

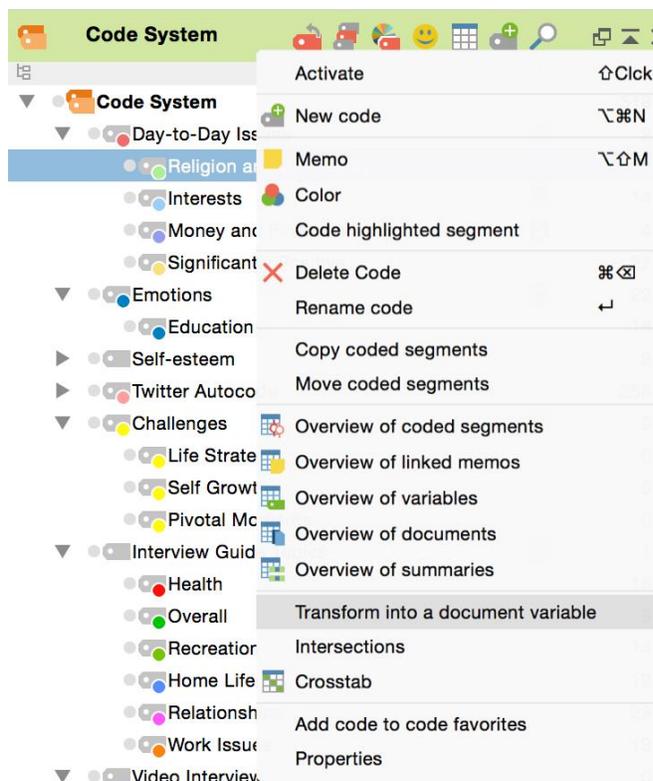


4. Click **OK** to include your selection and click **OK** again to create the Joint Display.

21.9 Transforming a Code into a Document Variable

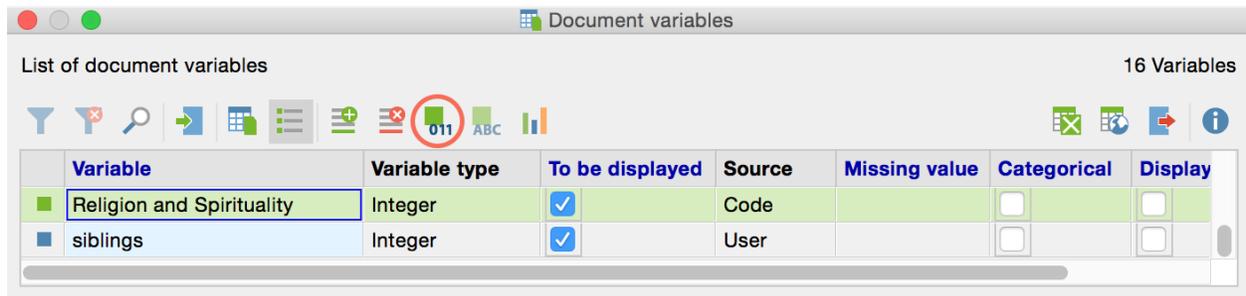
A code in the “Code System” can be transformed into a document variable, indicating how often the selected code appears in each document. The document variable is dynamic. MAXQDA will automatically update the document variable, i.e. increasing the variable value if a new segment is coded with the code. 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 document 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

21.10 Transforming a 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" 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

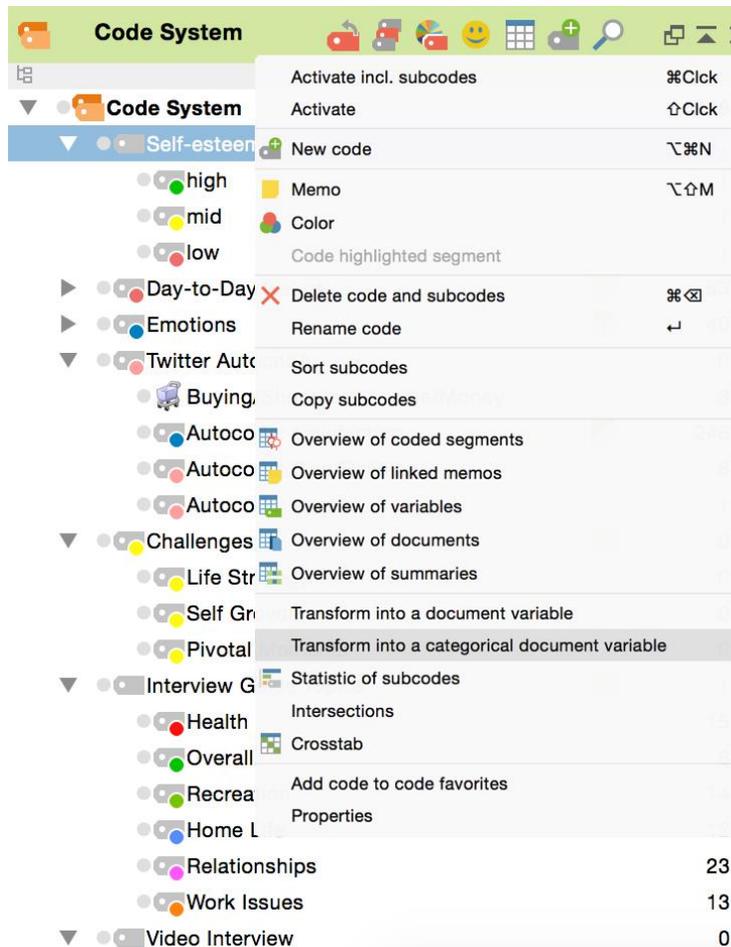
The method for evaluative content analysis can be done in MAXQDA in the following way. First, the category “self-esteem” is created as a code with the subcodes “high,” “medium” and “low.” The definitions of these codes along with anchor examples can be created as code memos.

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	Gender	Document group	Self-esteem
	Joanna	f	New York	high
	Kim	m	New York	low
	Teresa	f	New York	mid

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 text variables, and the texts are taken from the “Code System” (in this case “high,” “mid” or “low”).

	Variable	Variable type	To be displayed	Source	Missing value	Categorical
■	Self-esteem	Text	<input checked="" type="checkbox"/>	Code		<input checked="" type="checkbox"/>
■	Religion and Spirituality	Integer	<input checked="" type="checkbox"/>	Code		<input type="checkbox"/>
■	Race Ethnicity	Text	<input checked="" type="checkbox"/>	User		<input checked="" type="checkbox"/>

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 **Activate by document** 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.

22 Importing and Analyzing Twitter Data

22.1 What Possibilities does MAXQDA offer for Analyzing Twitter Data?

MAXQDA allows you to import data directly from Twitter into an open project, and analyze this data using known MAXQDA tools. Using advanced options, you can search for tweets and selected hashtags, usernames or terms, and import these into your MAXQDA project.

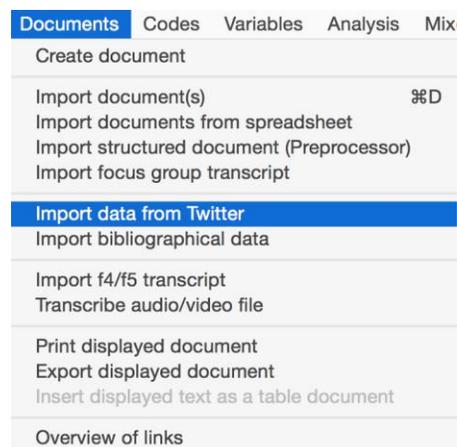
A notable feature is that you can automatically code the tweets with up to 100 author names and/or with up to 100 hashtags during the import process (and later if necessary). This automatic coding function is an advantage for researchers, as it saves a great deal of time in preparatory work that can be allocated instead to the actual analysis.

Researchers that analyze social media data can use MAXQDA to provide answers to such questions as “What content has a user, user group, company or institution posted in a given time period? How have other users reacted?”

Note: In order to use this function, a Twitter account is required.

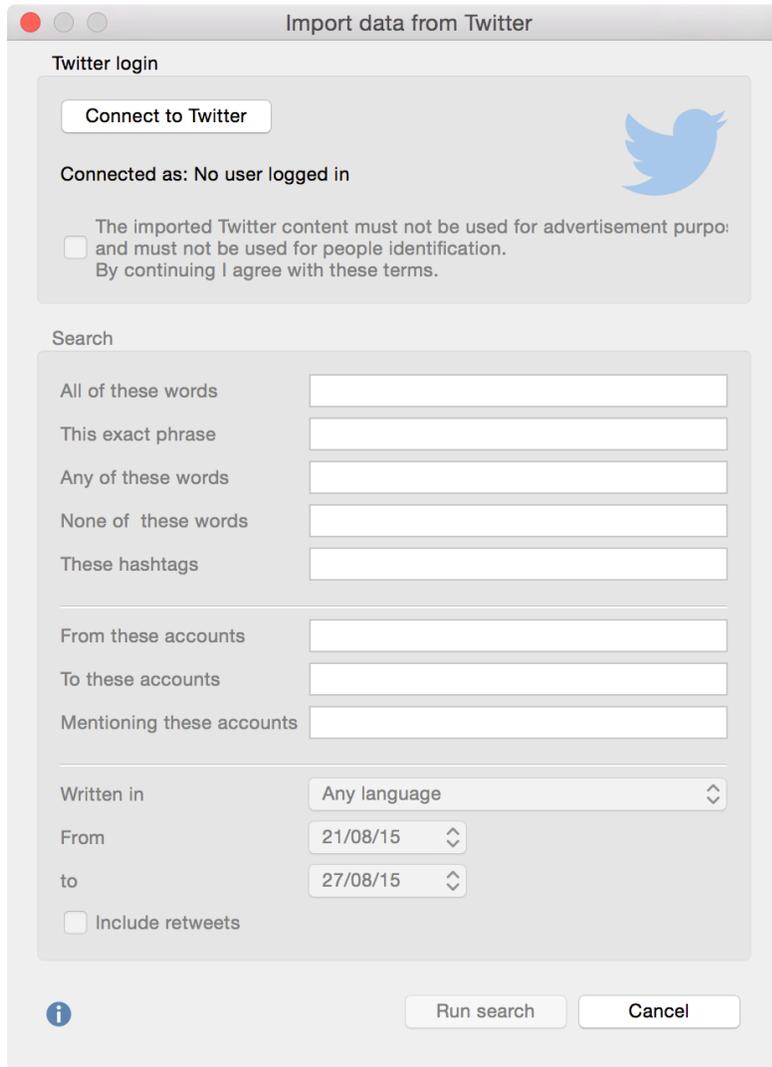
22.2 Importing Twitter Data

To import Twitter data into a MAXQDA project, select **Documents > Import data from Twitter** from the main menu.



Importing data from Twitter

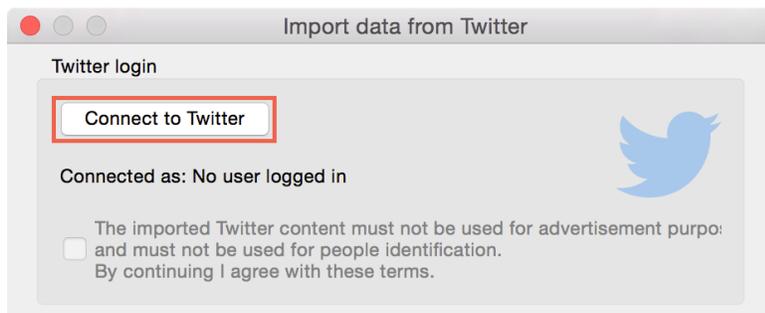
The following dialog window will appear:



Dialog window for importing data from Twitter

Twitter Login

In order for MAXQDA to import data directly from Twitter, you must first link your Twitter account to MAXQDA. To do so, click **Connect to Twitter** at the top of the dialog window.



Connect to Twitter



A new browser window will open where you can enter the login data of your Twitter account. Then, click **Authorize App** to allow MAXQDA to receive Twitter data from your account.

Authorize MAXQDA for Twitter

After registration, you can close the browser window and return to MAXQDA to start importing data.

Note: MAXQDA uses the connection to Twitter only for importing tweets. When you close MAXQDA, the connection will be cancelled, meaning you must reconnect to Twitter each time you restart MAXQDA.

Searching for Twitter data

The original dialog window that you opened in MAXQDA will remain open, indicating whose account is connected to MAXQDA. You can now check the box below the login button, which was previously greyed out. Only once you have agreed to the terms of using Twitter data neither for advertising purposes nor for personal identification can you start your search on Twitter. Once you agree to the terms, the search fields will become available.

The complex search follows the same principle as the advanced Twitter search. In the top fields, you can enter words or strings that must appear or not appear in the tweets. In the middle and lower sections, you can set define specific conditions for the search and the accounts to be searched.

From these accounts – searches for tweets from specific users. Multiple usernames can be entered, separated by commas.

To these Accounts - searches for tweets in which the entered username appears at the beginning of the tweet. Multiple usernames can be entered, separated by commas.

Mentioning these Accounts - searches for tweets in which the entered user name appears somewhere in the tweet. Multiple usernames can be entered, separated by commas.

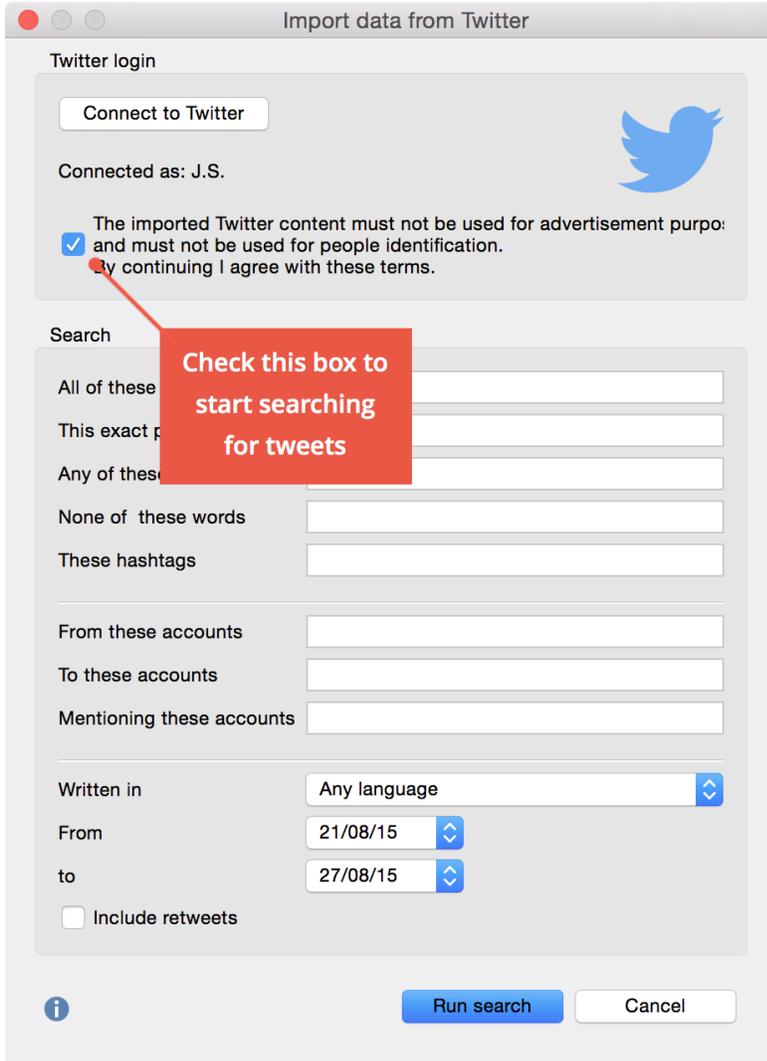
Further parameters can be set in the lower section:

Language: Limits the search to the selected language (the assignment of tweets to a language is done by Twitter itself and is not verified by MAXQDA). If you wish for tweets in all languages to be taken into account, allow the default parameter “Any language” to remain.

From/to: The default search period is set at seven days, because this is the maximum period allowed by Twitter’s search function. You can reduce the search period, for example to one day, by adjusting the dates accordingly.

Include retweets: By default, this option is not selected. If you wish to include retweets in your analysis, simply place a check mark in the appropriate checkbox at the bottom of the dialog window. (The inclusion and exclusion of retweets is managed by Twitter.)

Note: All search criteria are linked with the search operator AND. This means that only tweets that meet all of the conditions entered will be retrieved.



Search window for importing data from Twitter

After clicking the **Run Search** button, a preview window with the first 100 search results will appear. The number of tweets found is displayed on the lower left. When more than 100 search hits are found, the display is updated approximately every 10 seconds.

Date/Time	Tweet	Hashtags	Author	Author's r...	User's loc...	Followers	Foll...	User's ti
27/08/15 12:21	What is impact ...	GreekCrisis CT...	EkaSoft...	Eka Softw...		311	274	Eastern
27/08/15 11:52	.@yanisvaroufak...	GreekCrisis	Anthem...	Anthem P...	London	472	273	London
27/08/15 11:29	From #Germany...	Germany Gree...	ParisSel...	Paris Seli...	Paris is in ...	267	539	Amsterd
27/08/15 10:55	Η επόμενη μέρα...	Greekcrisis he...	ykalantz...	Yannis Ka...	35.309081...	739	1216	Athens
27/08/15 09:21	"3 Great lessons...	greekcrisis cris...	alexatha	Alex Atha...	London, E...	168	286	Athens
27/08/15 08:35	Come on in the ...	Kindle GBBO ...	SamTon...	Samantha...	UK	4073	2268	Amsterd
27/08/15 08:31	Watch my live g...	Turkey US Syri...	Gulnuray	Gulnur Ay...	Istanbul. T...	1713	407	London
27/08/15 07:07	#EasyNews is o...	EasyNews eas...	unitedre...	United Re...	UK	8284	1706	London
27/08/15 06:38	Προφανώς, πρό...	GreekCrisis	ParisDa...	Παρασκευ...	Athens, Gr...	144	157	Athens
27/08/15 06:22	Joseph Stiglitz: ...	Greece greekc...	marcus...	Marcus A...		451	1363	Brussels
27/08/15 04:30	.@yanisvaroufak...	GreekCrisis	RadioN...	RN - Radi...	Australia	52471	2101	Sydney
27/08/15 03:58	Support the 1st ...	Greek crowdfu...	_Ayudos	Ayudos.c...	Chicago, IL	15846	8091	Central 1
27/08/15 01:56	Sign to hold the ...	Banksters Gre...	WallHaxx	Evan Skal...	Port Town...	51	152	
27/08/15 00:30	#Žižek calls for t...	Žižek GreekCri...	ForbesJ...	Jonathan ...	Santa Bar...	84	285	

Preview of search results

When you click **Import data**, MAXQDA will begin the importing the tweets.

Note: An import operation is limited to 10,000 tweets.

Immediately after import, a dialog window will appear with the functions for autocoding tweets.

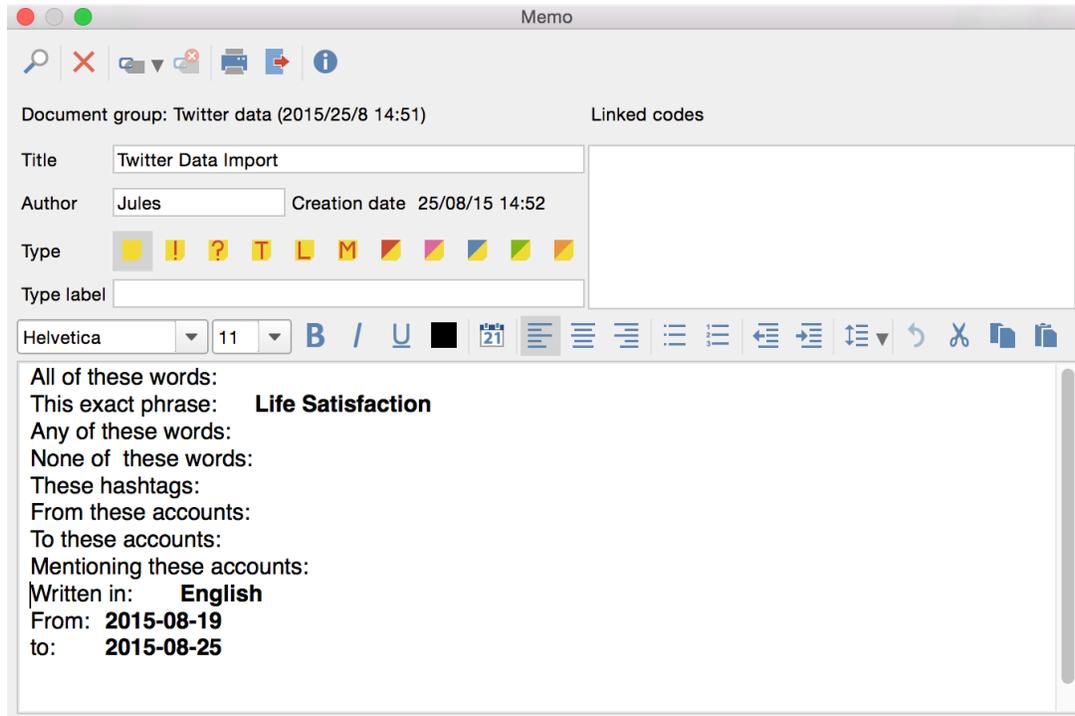
Twitter data in MAXQDA

During the import process MAXQDA creates a new document group in the Document System, in which a table document is generated for every 1,000 tweets.

Folder/Document	Count
Documents	634
Twitter data (2015/25/8 14:51)	168
Tweets 1 - 153	168

Table document with Twitter data in the Document System

To ensure transparency of the research process, the name of the document group contains the import date. A memo will also be created for the document group in which the search query is stored.



Memo of a Twitter import with the exact search query

When you double-click on the document in the Document System, the Twitter data will be displayed in the Document Browser:

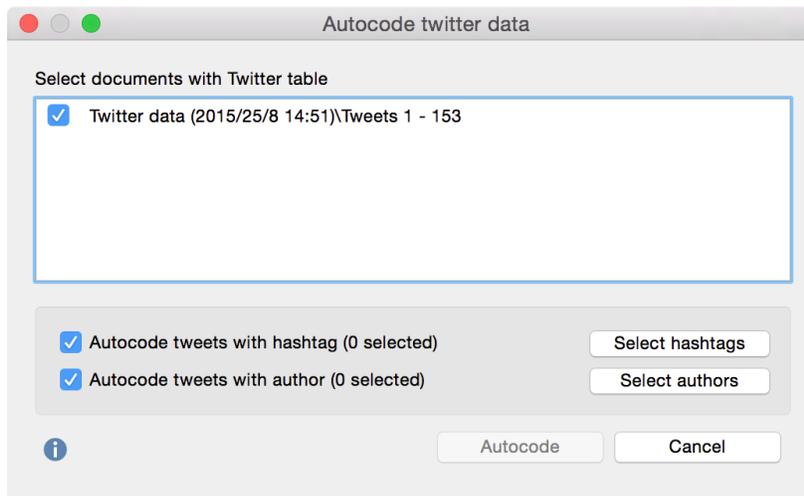
Document Browser: Tweets 1 - 254					
	1: Date/Time	2: Tweet	3: Hashtags	4: Author	5: Auth
118	14/06/2015 19:14	#Hillary2016 will make a gd #POTUS but #dems better get their act together towards #Obama @POTUS or else on #Election day.....	Hillary2016 POTUS dems Obama Election	pansimay64	Pansi W
119	14/06/2015 19:10	Senator Graham Drops Balls for Women's Vote http://t.co/wUn7VgBVX8 #election #fakenews via @humortimes	election fakenews	HumorTimes	Humor
120	14/06/2015 19:00	Definitely worth reading #election #algorithm https://t.co/Tj3yCdnqzZ	election algorithm	ArpanDalal_Data	Arpan I
121	14/06/2015 18:45	#Election #TKC #BREAKING NEWS!!! NORTHLAND CONTENDER TERESA LOAR TOPS GREATER KANSAS CITY WOMEN'S ... http://t.co/TYCISNF7CU	Election TKC BREAKING	OldHydePark	Old Hyr
122	14/06/2015 18:38	#Technology & it's influence in the 2012 #Presidential #Election between #Romney & #Obama - http://t.co/SGPn5m7LDv	Technology Presidential Election	SEOCompanyNY	Empire

Table document with Twitter data in the Document Browser

Each imported Twitter document contains 16 columns, each of which are named in the top line. Columns 1 to 3 relate to each tweet. Columns 4 to 14 contain information about the author. Column 15 shows how many times the Tweet was retweeted and column 16 informs you about the number of likes for the Tweet.

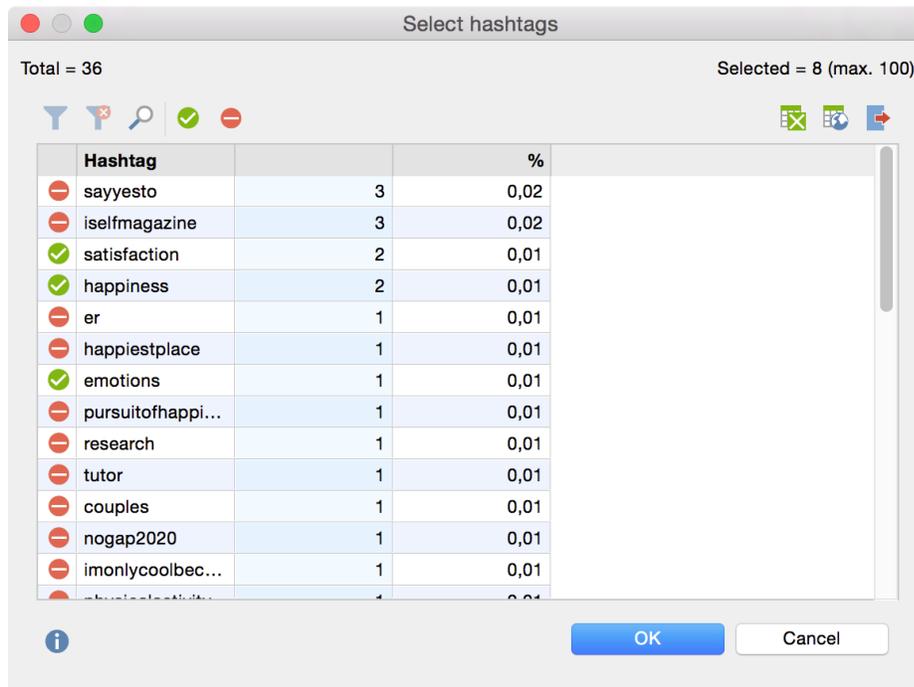
22.3 Autocoding and Analyzing Twitter Data

MAXQDA can automatically code the text of up to 100 authors and 100 hashtags from imported Twitter data. When you import Twitter data, a dialog window will appear in which you can enter the author names and hashtags you wish to autocode. Alternatively, you can call up the function from the main menu **Analysis > Autocode Twitter data**.



Autocode Twitter data dialog window

In the dialog window, all existing Twitter documents are listed. From here, you can choose which documents you wish to autocode. If the dialog window was opened automatically following an import, the most recently imported documents are already preselected. Before you can start the autocoding process, you must first select the hashtags or author names you wish to encode. To do so, use the **Select hashtags** and **Select Authors** buttons. A new dialog window will appear, in which the selected hashtags and author names are listed:



Selecting hashtags for autocoding

In the "Hashtag" column, the different hashtags are listed, and in the "Tweet" column you can see the number of tweets in which the hashtag appears. In the upper left corner you can see how many different hashtags were found in total; the top right shows how many of these hashtags are currently selected.

How do you select the entries with the hashtags that are relevant to your analysis?

1. Select the desired row. As usual, you can select multiple rows by holding down the Ctrl key (Windows) or Command key (Mac). Your selection will be highlighted in green.
2. Click the green checkmark  symbol in the upper toolbar. A green checkmark will appear in front of the the selected hashtags.

This procedure can be repeated as desired, or reversed by selecting a row and clicking on the **Stop** icon to deselect an entry. Note that a maximum of 100 entries can be selected.

When you click **OK**, you will return to the Autocode dialog window, where you can proceed in the same manner with author names. When at least one hashtag or author name is selected, the Autocode button becomes available and can be clicked. MAXQDA then begins the autocoding process, which may take a moment depending on the number of entries. The resulting new code "Autocode Twitter data" with the date will be inserted at the top of the Code System.

Code	Count
Code System	907
Autocode twitter data (15/06/2015 13:46)	0
Tweet Hashtag	0
election	251
politics	15
vote	10
usa	7
presidential	6
obama	5
democrats	4
hillaryclinton	4
republicans	4
bush	7
Tweet author	0
PhiladelphiaNqr	11
ukstripshow	9
fayau1	6
HumorTimes	5
NijaEye	5
street77news	5
WashingtonPist	5
HoneyRadnerRen	3

The automatically inserted code in the Code System

In the automatically generated code, "Tweet hashtag" and "Tweet author" appear as subcodes of the selected hashtags and author names. For the analysis, they are automatically sorted in descending order of frequency. The hashtags and author names that appear most often in the tweets are at the top. The codes can be managed like any other code - for example, you can change the color or arrangement, depending on what makes the most sense for your analysis.

Note: From the main menu **Analysis > Autocode Twitter data** you can call up the autocode function as often as desired. It is therefore not necessary to perform the autocoding process immediately after import.

Analyzing Twitter Data

For the analysis of Twitter data, all the usual MAXQDA tools are available. For example, you can use the Simple Coding Query to determine which tweets were written by specific authors:

1. Activate one or more documents with Twitter data in the Document System.
2. Activate the codes with the relevant author names in the Code System.

The result will be a compilation of all relevant tweets, which will appear in the "Retrieved Segments" window. If you are using MAXQDA Plus and therefore have MAXDictio available, you can use this compilation of tweets to perform a simple word frequency analysis. Select **MAXDictio > Word frequencies** and check the option "Only in Retrieved Segments".



23 Focus Group Analysis

23.1 How can MAXQDA support Focus Group Analysis?

Conducting focus groups and group interviews occupies an important role in social and market research. Focus groups offer a high potential for diverse analyses, therefore in MAXQDA 12, many new features have been developed that allow for the simple and effective analysis of focus group data. For simplicity we use only the term "focus groups" in MAXQDA and in this manual, although the functions are all suitable for the analysis of group interviews as well.

- Transcripts of focus groups can be imported so that the contributions of the participants are automatically coded while importing..
- Individual participants can be activated directly in the "Document System", so you can easily compile the statements of individuals on selected topics. Background information on the participants, such as age and professional experience, can be stored as variables for focus group participants and used for the specific and comparative analysis of participant groups.
- The "Overview of focus group participants" can be used to answer questions such as the following: Who has spoken at what frequency? How extensive are the contributions of each participant, in words or characters?
- Use the Code Matrix Browser and the Crosstab for focus groups to create visualizations such as "Themes x Participants", with which participants or groups of participants can be compared by diverse themes, arguments, positions, and viewpoints in the allocation of codes.

23.2 Importing Focus Group Transcripts

To import a focus group transcript to MAXQDA, select the Main Menu function **Documents > Import focus group transcript**. Alternatively, this function is available in the context menu at the top level of the "Document System". The transcript can be stored in all MAXQDA readable text formats, which include DOC/X, ODT, RTF and TXT. When importing MAXQDA automatically generates a unique code for each participant in the Code System, and for the following evaluation and differentiation automatically codes all contributions of a given participant with this code .

To ensure that the automatic import process goes smoothly, MAXQDA requires the following in terms of composition and structure of the transcript:

- Each contribution begins in a new paragraph. At the beginning of each contribution the name of the participant appears, followed by a colon. Using bold type or special fonts for the names will not affect the import process, however upper and lowercase will be taken into account. Names like "Lisa B." or "Gábor" with spaces and special characters are not a problem when importing. The subsequent text will be coded with the names of the participants, up to the point where the next speaker is indicated.

- MAXQDA will tolerate a space that is accidentally set before a name or in front of a colon, and treats the associated names to be identical.
- The names of the participants that appear before the colon can be a maximum of 63 characters in length.
- Sections of text at the beginning of the transcript (in which no colon occurs within 63 characters) will not be coded. This provides the opportunity for you to include a title and general information about the focus group for easy recognition.
- Timestamps originating from the transcription software F4 or F5 will be treated as usual: MAXQDA will ask if you wish to associate the corresponding audio/video file with the transcript. The timestamps will be integrated into the MAXQDA project and removed from the text.

Let's take the following interview with multiple participants as an example:

Moderator: So would you say you are actually insecure job-wise – or is it just something that comes from a bit of negativity at the moment?

Lucas: Actually I think my job is actually safe because they would find it hard to replace me – not just saying that but it's true. And – and they do try to improve morale and there's plenty of awards they dish out for employee of the month etc. That's sort of text book stuff though do you think?

Moderator: Anyone else with anything to say about their own careers or current employment anyway?

Miles: I'm an artist – just commercial – but even a commercial artist hasn't got much job security. But I'm lucky to have a job at all. Don't knock it. – Most of the people I graduated with are still messing around looking for something permanent or retraining or doing nothing at all.

Lisa: Yes I am carer. I work for XXX home care staff agency. I am not really happy with that. I tried to get permanent job with Nursing homes, but my papers – they needed NVQ, I have right experience you know but. So the agency not so well paid but its job so I must take. The council I think they pay agency £35 an hour for me. I only get 8. I would like leave but cannot maybe when I get proper job.

Excerpt from an optimally prepared focus group transcript

Following a successful import, MAXQDA opens the transcript immediately in the "Document Browser", and from the coding stripes in the margin you can see that the speech contributions have already been coded. During the import MAXQDA creates a new document in the "Document System" with the filename of the transcript. This document has its own symbol, which allows you to immediately recognize that it relates to a focus group. Below the document, the participants of are listed individually, with the number at the end of the line indicating the number of contributions. The participants are attached to their transcripts. If you move the document, the participants will move with it. Only the order of participants can be adjusted with the mouse. Like other documents, focus groups documents can be assigned to a document group or set.



MAXQDA view after importing a focus group transcript [must be able to view Document System, Code System and Document Browser with the above transcript]

In the "Code System" you will see a very similar listing: At the top of the Code System a code with the name of the imported data will appear, with the participants listed as subcodes, and the same  symbol as in the "Document System". Participant codes and the participants in the document are attached: If you change the order of the participants or their names in the Code System, their order will also change in the Document System, and vice versa. This also applies when a focus group transcript is deleted: If you remove a transcript from the "Document System", the corresponding code and its subcodes will be deleted from the "Code System".

The fact that the participants are available both in the "Document System" and in the "Code System" opens up extensive possibilities for the analysis, as the participants can be activated as independent codes and as document subsets.

Tip: After importing the transcript you should check the names of the participants for typographical errors. This will avoid frustration later, in the case that the same person appears twice under different names because the name was written or spelled differently. Since the participant code cannot be deleted, you would have to make the appropriate modifications in a word processing program and then import the transcript again.

When you import multiple transcripts, a unique code will be assigned to each focus group along with subcodes for the respective participants. The top-level codes can be moved within the same Code

System, but the participant codes are firmly attached to their top-level code, and their order can be modified only under this top-level code.

Tip: The automatic coding function for participants may be useful for other types of documents in which multiple individuals interact, for example forum discussions or comments on YouTube videos.

23.3 Transforming an already imported text into a focus group transcript

Sometimes you realize that it would have been better to import a text as a focus group transcript after you have already imported *and*/coded it as a normal text document. In this case you can use the function **Insert displayed text as focus group transcript**, which is available in the main menu of MAXQDA. First, open a document and then start the function from the menu. MAXQDA will insert a copy of the text as a focus group document:

- The participants contributions will be coded automatically and corresponding codes for each participant will be created in the „Code System“ window.
- MAXQDA will copy all existing coding information and memos into the newly created document, also the variable values and the summaries.
- A linked media file will be linked to the new document, too.
- The links in or on the document will not be transferred.

23.4 The “Overview of Focus Group Participants”

The "Overview of focus group participants" provides important information about the individual participants, such as the number and scope of their respective contributions, and also allows you to store additional information about each participant in the form of variables. To access the overview, right-click on a focus group in the "Document System" and choose **Overview of focus group participants**.

The following window will open:



Overview of focus group participants

Focus group: Focus Group Transcript No.1 6 Focus group participants from 1 focus groups

	Participant	Focus group	Contributions	% Contributions	Characters	% Characters
<input checked="" type="checkbox"/>	Moderator	Focus Group T...	18	40,00	2774	24,04
<input type="checkbox"/>	Lucas	Focus Group T...	11	24,44	3381	29,30
<input type="checkbox"/>	Miles	Focus Group T...	3	6,67	908	7,87
<input type="checkbox"/>	Lisa	Focus Group T...	3	6,67	913	7,91
<input type="checkbox"/>	Casey	Focus Group T...	7	15,56	2435	21,10
<input type="checkbox"/>	Parker	Focus Group T...	3	6,67	1127	9,77

The "Overview of Focus Group Participants" provides important information

The first two columns are used to identify the participants and their respective focus group transcript. The percentages of contributions and the characters always appear in the displayed table. If you have assigned a particular color to a participant, it will appear in the first column of the table.

In top of the window are several buttons, whose special functions in relation to the focus group analysis are explained here:

 **Only activated focus group participants** - Reduces rows to those of participants activated in the "Document System". This is especially handy if you want to exclude Moderators from the overview: Activate only the other participants and click the button.

 **Statistics** - Presents the values of all the columns displayed in a frequency table or chart, excluding the "participants" and "focus group" columns. More information on frequency tables and charts can be found here >> [LINK](#).

 **Data Editor** - Turns on the Variable View, in which the variable values are visible.

 **List of variables** - Switches to Variable View, where you can define new variables and adjust and edit existing variables. More information on the use of variables in focus group analysis is provided in the next section.

Tip: You can call up the summary table not only for individual focus groups transcripts, but also for the participants of all the focus groups in the MAXQDA project. To do this, click at the top level in the "Document System" with the mouse and select the appropriate entry. A corresponding overview is also available in the context menu of an individual participant, referred to here as "Overview of participant variables".

Editing Variables for Focus Group Participants

You can store background information for each participant in a focus group for selective analyses and comparisons; for example, comparing the statements of older and younger participants. First open the "Overview of focus group participants" from the context menu in the "Document System" (either at the top level for all focus groups in the project, or at the level of a single focus group).

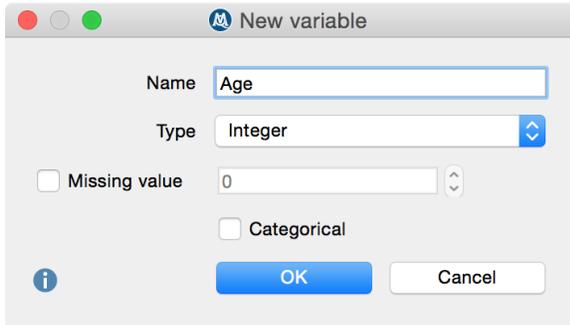
As seen above, the default overview contains multiple columns of information that MAXQDA compiles for the participants. You can add more columns for information such as, for example, age, profession, or professional rank.

Creating new variables

Adding new variables is done in the same way as in other overviews of variables in MAXQDA:

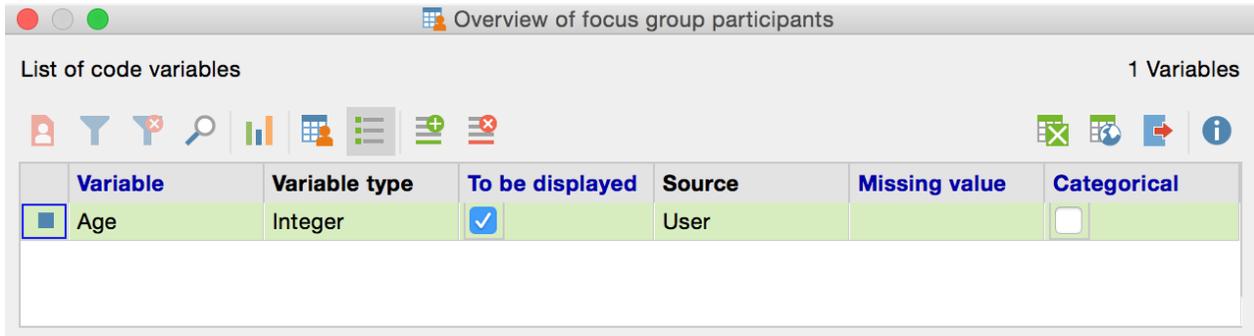
1. Click on the List of Variables button  to switch to Variable View.
2. Next, click on the New Variable  button.

A new window will appear, in which you can define the name and type of the new variable.



Creating a new variable

After clicking OK, you will see that a line has been added with the newly added variable in Variable View.



Variable	Variable type	To be displayed	Source	Missing value	Categorical
Age	Integer	<input checked="" type="checkbox"/>	User		<input type="checkbox"/>

Newly added variable in Variable View

Entering values for the participants

Click on the button  **Overview of focus group participants** to return to the normal view. On the far right you will see a newly added column, in which you can enter values for each participant. The editable column can be easily recognized by its blue column heading, unlike the black headings of the columns automatically generated by MAXQDA.



Overview of focus group participants

Focus group: Focus Group Transcript No.1 6 Focus group participants from 1 focus groups

Participant	Focus group	Contributions	% Contributions	Characters	% Characters	Age
Moderator	Focus Group Transcript No.1	18	40,00	2774	24,04	55
Lucas	Focus Group Transcript No.1	11	24,44	3381	29,30	35
Miles	Focus Group Transcript No.1	3	6,67	908	7,87	29
Lisa	Focus Group Transcript No.1	3	6,67	913	7,91	0
Casey	Focus Group Transcript No.1	7	15,56	2435	21,10	0
Parker	Focus Group Transcript No.1	3	6,67	1127	9,77	0

Entering data for a variable

The variable values for participants can be used:

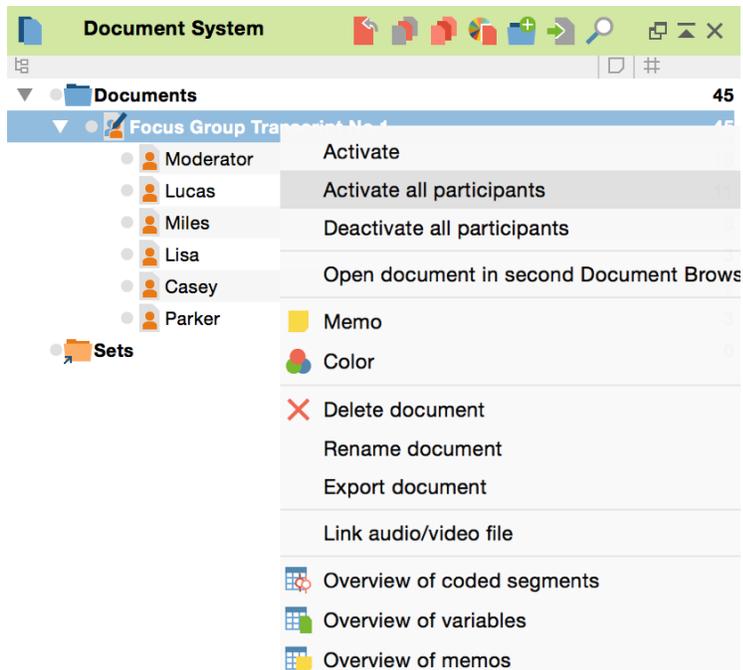
- To activate only selected participants with specific values for further analysis or
- in a Crosstab for focus group to compare groups of participants.

23.5 Coding Query for Coded Segments

The central principle for the compilation of coded segments in MAXQDA is the activation of codes and documents. This principle also applies to the analysis of focus groups, however in this case you have the possibility to activate not only the focus group transcript as a whole, but also all or certain participants in the Document System. In this case, only the contributions of activated participants will be taken into account in the analysis.

Selecting Participants for Analysis through Activation

To activate a participant in the "Document System" for analysis, proceed exactly as when activating a document. You can right-click on participants and select **Activate** from the menu, or simply click on the gray circle by icon of the participant. To activate or deactivate all the participants in a focus group, you can use the commands **Activate all participants** or **Deactivate all participants** in the context menu of the focus group.



Activate all participants of a focus group

MAXQDA analysis of focus groups applies either to the entire document or to individual participants of the selected focus group, but never a mix of these two levels. For this reason, the transcript and the participants can never be activated together, following the principles below:

- When you activate a transcript, its participants will be deactivated.
- When you activate a participant, its transcript will be deactivated.
- When you activate a document group or all documents, focus group participants will be disregarded or deactivated if necessary.

During the search for participant statements, MAXQDA can help you by performing the following standard tasks:

Find everything that the participant Lucas said in a focus group

1. Activate the corresponding focus group in the “Document System”.
2. Activate “Lucas” in the “Code System”.

MAXQDA will list all of the contributions from Lucas in the “Retrieved Segments” window.

Find everything that the participant Lucas said in multiple focus groups

1. Activate all focus groups in the “Document System”.
2. Activate all codes for “Lucas” in the “Code System”.

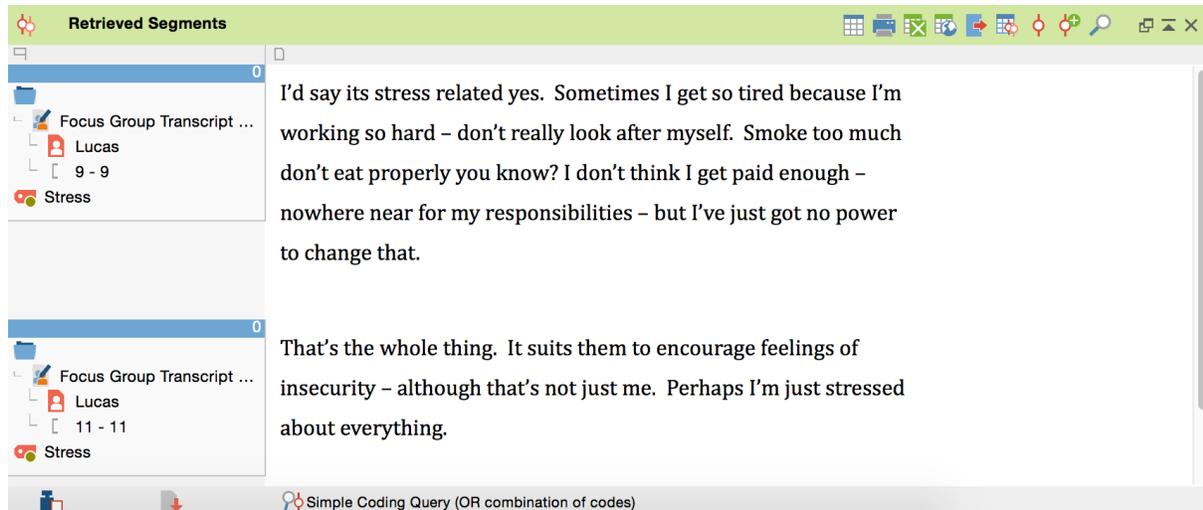
MAXQDA will list all of the contributions from Lucas from all focus groups in the “Retrieved Segments”.



Find everything that Lucas said regarding a particular theme, for example “Stress due to the financial crisis”:

1. Activate “Lucas” in the “Document System” in all of the transcripts you wish to include.
2. Activate the theme code “Stress due to the financial crisis” in the “Code System”.

MAXQDA will list all of the contributions from Lucas related to this theme in the “List of Coded Segments”. The participant is also indicated in the indication of origin, so you can easily associate the contribution with the participant.



Statements of a participant on a topic in the “Retrieved Segments” window

Find everything that multiple participants said in a focus group

You can always activate multiple participants simultaneously. MAXQDA takes all activated participants into account during the Coding Query.

Complex Coding Query

The Complex Coding Query function also allows you to limit the search to the statements of a particular participant as coded segments. This function follows the same logic as the simple Coding Query: When you activate the focus group transcript, the search takes the whole document into account, whereas when you activate an individual participant, this participant’s contributions are treated as a document.

Suppose you have assigned thematic codes in a transcript, and also coded the communication sequence so that there is a Code System of the following type:

Themes

- Financial Crisis
- Sense of Security
- ...

Communication sequence

- Objections
- Support for the statement
- ...

If you want to find all the statements in which Lucas presents an objection to an earlier statement about the "financial crisis", you can do so using the Complex Coding Query:

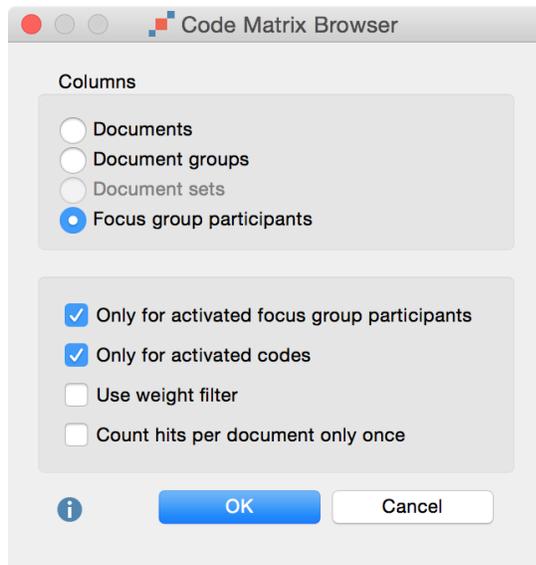
1. Activate the participant "Lucas" in the "Document System".
2. Activate the codes "Financial Crisis" and "Objections".
3. Call up the Analysis > Complex Coding Query function.
4. Select the "Overlapping" function, which searches for instances in which two codes, namely "Financial Crisis" and "Objections" occur simultaneously.
5. Ensure that the Only activated documents and focus group participants function is selected.
6. When you click on Start, MAXQDA will list the results in the "Retrieved segments".

23.6 The Code Matrix Browser: View Coded Segments per Participant

MAXQDA's Code Matrix Browser is the ideal tool with which to illustrate and analyze the distribution of coded segments in different documents. This tool is in the form of a table, in which the documents make up the columns and the codes make up the rows. In the analysis of focus groups, often it is not the transcript as an individual document that is the central focus, but rather the analysis of the contributions in multiple documents, to be considered separately from each other.

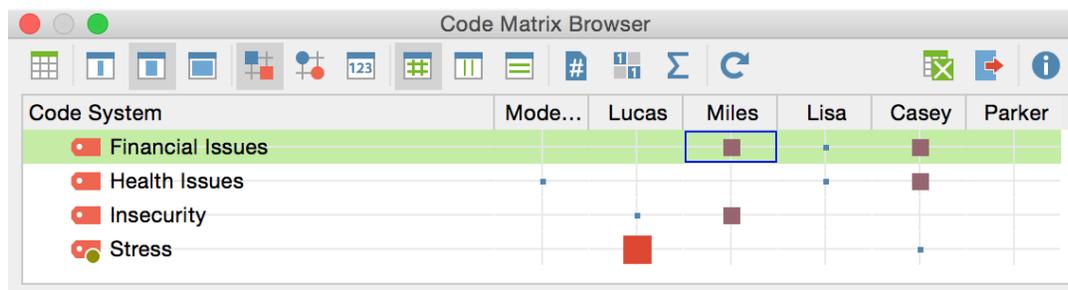
The MAXQDA Code Matrix Browser therefore offers the opportunity to automatically perform exactly this analysis and visualize the distribution of codes per participant:

1. Call up the **Code Matrix Browser** from the **Visual Tools** Menu.
2. In the window that appears, select the option **Focus Group Participants**. If you would like to visualize the codes of an individual participant (or to exclude the moderator from the visualization), you can activate these elements in advance, and additionally select the option **Only for activated focus group participants**.



Code Matrix Browser options

When you click OK, MAXQDA will open the Code Matrix Browser, whose columns are made up of the participants.



Codes per participant

The size of the squares provides information about how many coded segments from the four thematic codes are present in the contributions of each participant. The image above demonstrates the frequency of encodings on the four issues made by Lucas, Miles, Lisa, Casey, and Parker. The larger the square, the more encodings have been made with the code in question. It is evident from the image that Lucas a high amount of coding occurred regarding "Stress due to the financial crisis", whereas Parker made no contribution to this theme.

In the presentation of focus groups, The Code Matrix Browser operates in the same manner as usual: Double-clicking on a cell will display the corresponding coded segments in the "Retrieved Segments" window and clicking on the **Display nodes as values** ¹²³ presents the information as code frequencies rather than square. The functions of the other buttons in the Code Matrix Browser are described here >> LINK.

Note: If a project has multiple focus groups, all or all activated participants from all focus groups will be displayed in the Code Matrix Browser. The order of participants from left to right corresponds to their order in the "Document System" from top to bottom.

The Segment Matrix for focus group participants

Using MAXQDA’s Quote Matrix, you can synoptically compile coded segments. This can be illustrated as follows: Behind every square in the image above is a certain number of coded text segments, which can be easily compiled by, for example, double-clicking on the square. A Quote Matrix contains not only the text segments that lie behind a square, but also compiles the text segments of all the squares together in a table.

To create a Quote Matrix, click the **Quote Matrix**  button in the Code Matrix Browser toolbar. MAXQDA will open a window where you can select a location and an output format, which include: Excel, RTF, HTML, and TXT. The Excel format is suitable for tables with many columns; otherwise the RTF format, which can be opened with all standard word processing programs such as Word, is recommended.

	A	B	C	D
1	Finances	<p>I don't think I get paid enough – nowhere near for my responsibilities – but I've just got no power to change that.</p> <p>\Focus Group Transcript No.1\Lucas 9 - 9 (0)</p> <p>You're joking right? I never don't have money worries. I smoke and I drink, part of my money is taken away at source for my son – not complaining about that, but my lifestyle isn't the greatest. I never have any spare. I don't go out, I really hate being in debt... but when the end of the month comes – I'm struggling. I'm nearly 40, and my mum still brings me red cross parcels of home cooked food towards the end of most months.</p> <p>\Focus Group Transcript No.1\Lucas 20 - 20 (0)</p> <p>I'm saving for my sons education – he's quite bright – takes after his dad! . His mother doesn't manage to save anything at all... Down to me. Actually that's not right she does save ...that is one good thing we managed to agree</p>	Miles	Lisa
2	Insecurity		<p>I'm an artist – just commercial – but even a commercial artist hasn't got much job security. But I'm lucky to have a job at all. Don't knock it. – Most of the people I graduated with are still messing around looking for something permanent or retraining or doing nothing at all.</p> <p>\Focus Group Transcript No.1\Miles 15 - 15 (0)</p>	<p>So the agency not so well paid but its job so I must take. The council I think they pay agency £35 an hour for me. I only get 8. I would like leave but cannot maybe when I get proper job.</p> <p>\Focus Group Transcript No.1\Lisa 16 - 16 (0)</p> <p>I'd say the same too. We talk about it a lot at home... I mean we've only got babies but how are we going to pay for expensive school trips, university, cars, weddings. We are only just getting by now and we've both got jobs.</p> <p>\Focus Group Transcript No.1\Lisa 26 - 26 (0)</p> <p>Its good I think – I think I am good for them but I do not have enough money I think.</p> <p>\Focus Group Transcript No.1\Lisa 18 - 18 (0)</p> <p>Me I am regular. Its good I think – I think I am good for them but I do not have enough money I think.</p> <p>\Focus Group Transcript No.1\Lisa 18 - 18 (0)</p> <p>Yes and no. I cannot say too much and I have to keep quiet about things to the old people which I visit.</p> <p>\Focus Group Transcript No.1\Lisa 18 - 18 (0)</p> <p>I mean we've only got babies but how are we</p>

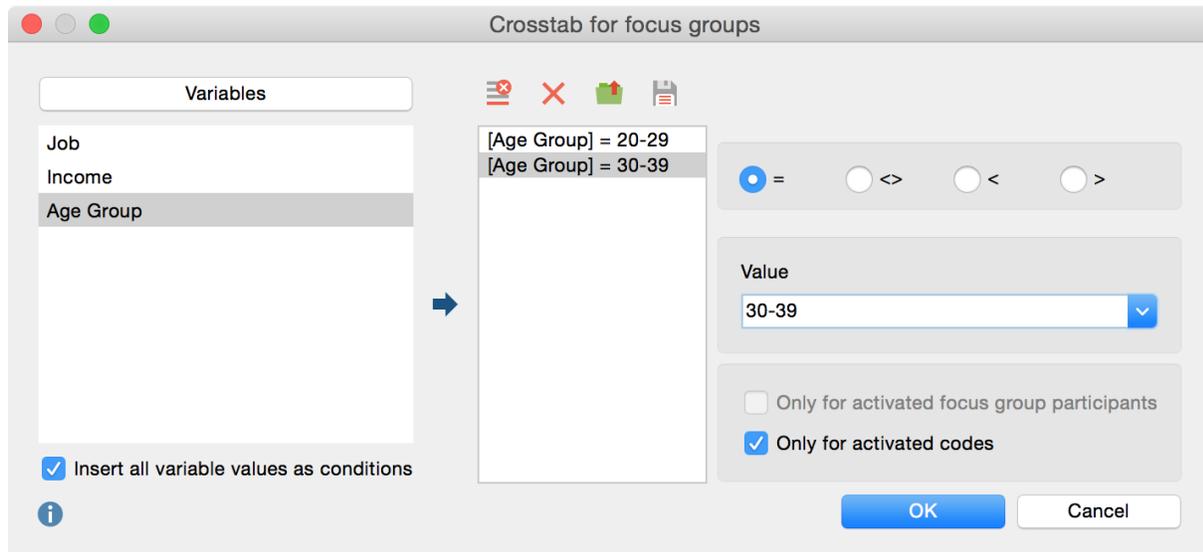
Excerpt from a Quote Matrix in Excel

An indication of origin appears below each segment: The contribution in the upper left is from a statement by Lucas from paragraph 11 of the transcript, and encoded with a weight of 0.

23.7 Crosstab for Focus Groups

MAXQDA offers the opportunity to save background information on each focus group participant in the form of variables. Suppose you have divided participants into two age groups: With the Crosstab for focus groups, you can easily compare the thematic coding for these two groups. The Crosstab for focus groups functions essentially the same way as the "normal" crosstab: The codes form the columns and the groups of focus group participants form the rows, while the respective code frequencies are presented in the cells.

The function is located under **Mixed Methods > Crosstab for focus groups**. The following window appears, in which you can define the participant groups.

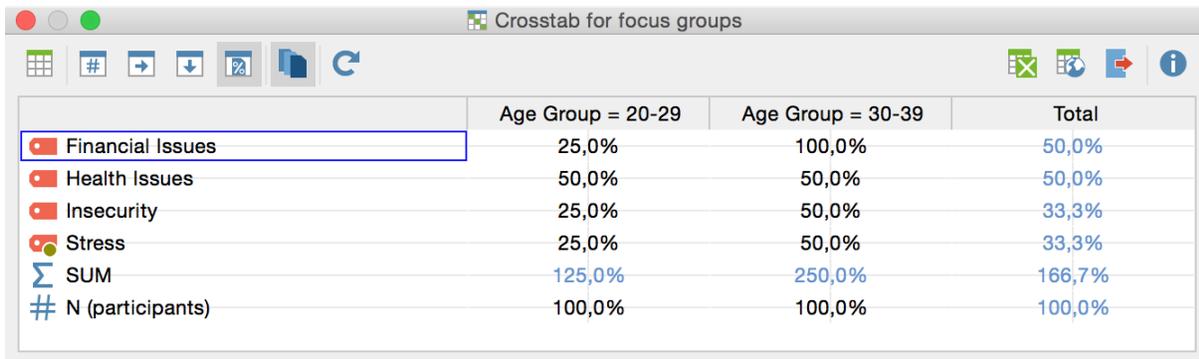


Define participant groups for the columns

Each line in the middle column of the window forms a column in the final crosstab. In the image above, the option **Insert all variable values as conditions** has been selected and the variable "age group" has been automatically transferred to the middle pane with the blue arrow. MAXQDA has automatically inserted a row for both occurring values, "20 - 29" and "30 - 39".

Note: In the crosstab, MAXQDA evaluates all participants that meet the conditions in the second column of the window - regardless of whether they come from one or more focus groups. You can restrict the evaluation to include only currently activated participants using the **Only activated focus group participants** option.

The final crosstab appears as follows:



	Age Group = 20-29	Age Group = 30-39	Total
Financial Issues	25,0%	100,0%	50,0%
Health Issues	50,0%	50,0%	50,0%
Insecurity	25,0%	50,0%	33,3%
Stress	25,0%	50,0%	33,3%
Σ SUM	125,0%	250,0%	166,7%
# N (participants)	100,0%	100,0%	100,0%

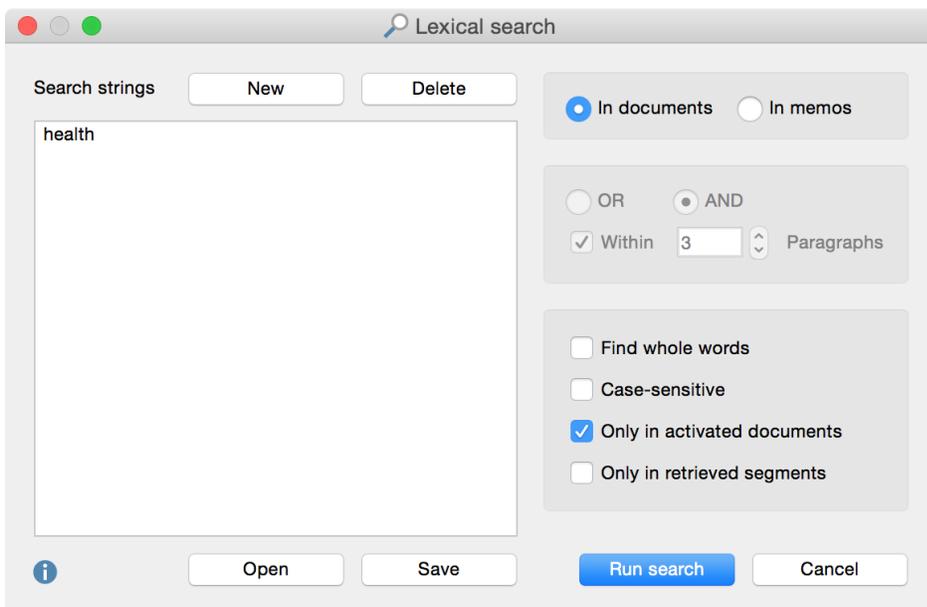
Crosstab for focus groups

The example is read as follows: 25% of the 20- to 29-year-olds have been assigned the code “Financial issues,” and 100% of the 30 to 39-year-olds.

23.8 Using the Lexical Search for Contributions from Participants

MAXQDA’s lexical search can be limited to individual contributions from participants:

1. Activate the participants whose contributions you would like to search in the “Document System”.
2. Access the function via **Analysis > Lexical Search**.
3. In the window that appears, enter the desired search terms and select **Only activated documents and focus group participants**.



Lexical search

Search strings:

health

In documents In memos

OR AND

Within Paragraphs

Find whole words

Case-sensitive

Only in activated documents

Only in retrieved segments

Search the contributions of focus group participants



23.9 Notes on Teamwork and Exporting Code Systems

With the function **Project > Merge projects**, existing focus groups in a project will be transferred automatically. Coding with participant codes will also be transferred when using the **Export teamwork** and **Import Teamwork** functions, as long as both projects contain identical focus group transcripts.

When codes are exported using the function **Codes > Export Code System (MAXQDA format)** the participant codes will be exported as normal MAXQDA codes.

When you open a MAXQDA 12 project with automatically coded focus groups in MAXQDA 11, the codes remain with the contributions in the Code System, however the document is treated as a normal text document. If you transfer the project back to MAXQDA 12, the documents will remain in the form of normal text documents; the additional functionality will no longer be available.

24 Transcribing and Coding Audio and Video Files

24.1 General Information about the Analysis of Audio and Video Files

MAXQDA supports the transcription of audio and video data with basic functions. For example, you can define the playback speed, volume, and rewind interval. In addition, you can insert timestamps into your transcripts to create a link between transcript and voice-over. In addition, with MAXQDA you can work with transcripts that were created with the software f4 / f5, wherein the existing timestamps will be converted into MAXQDA internal timestamps.

MAXQDA 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. With the help of these MAXQDA functions, you can analyze a wide range of different types of data – text, tables, PDFs, audio and video files – all within the same program.

24.2 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 **View > 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.

 **Multimedia Browser** – Switches the Multimedia Browser on, in which videos are displayed and in which you can code media files.

 **Control Panel** – Calls up the Control Panel, in which the options for volume and playback speed are located.

 **Overview of timestamps** – Displays or hides the table view of the timestamps in the current media file.

 **New timestamp F6** – Inserts a timestamp of the current playback position of the media file in a transcript.



 **Sync mode** – turns on/off sync mode, which causes the text to follow the media file, comparable to a teleprompter.

 **Previous timestamp Shift+F3** – Rewinds the media file to the previous timestamp.

 **Stop** – stops playback and jumps back to the beginning of the file.

 **Play/Pause F4 or F5** – 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 Timestamp F3** – 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.

24.3 Inserting Audio and Video Files in a MAXQDA Project

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 camera  for video files.

There are different ways of making audio and video files available for use in MAXQDA:

- Select **Documents > Import document(s)** from the main menu,
- Or right-click on the root of the “Document System”, or a document group, and select **Import document(s)**,
- 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 or Mac Finder into the “Document System” via Drag & Drop with the mouse.

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 > Preferences (Windows)** or **MAXQDA 12 > Preferences (Mac)**. If a file with the same name already exists, MAXQDA will ask you if you want to replace the existing file.

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.

MAXQDA supports the following file formats:

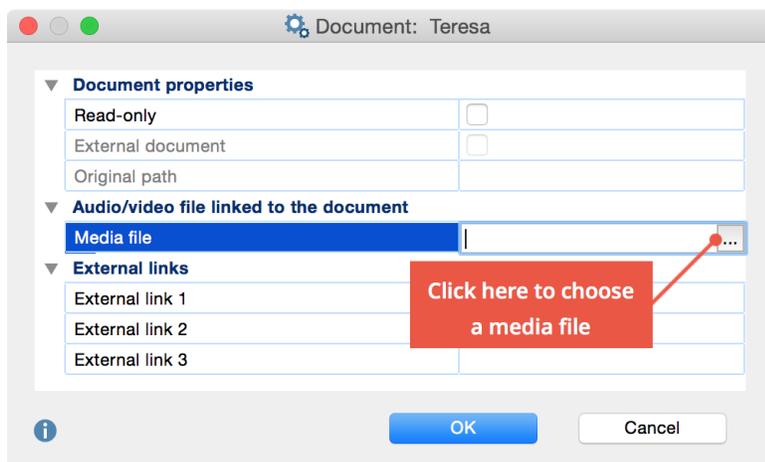
Audio	Windows: MP3, WAV, WMA, AAC, M4A Mac: MP3, WAV, AAC, CAF, M4A
Video	MP4, MOV, MPG, AVI, M4V, 3GP, 3GGP Windows: additionally WMV For video, a MP4 file with the video codec H.264 / AVC is recommended.

Windows can also support other file formats if the required codec is installed. Normally this is however not necessary.

Assigning Audio/Video files to a Text Document

It is possible to retroactively assign a media file to an existing document. To do so, right-click the document in the Document System and select "Properties". From here you can link a media file at any time.

Alternatively, you can right-click the document and select **Link Audio/Video file**



Assigning an audio or video file subsequently to an existing document

Note: When you first open a media file, MAXQDA creates a file with the extension .DAT in the folder for externally saved files. This file has the same name as the media file. MAXQDA requires this .DAT file in order to quickly display the media file, and it should therefore not be deleted.

24.4 Playing Audio and Video Files in MAXQDA

To execute playback of the sound of a media file in MAXQDA:

1. Ensure that the "Media player" toolbar is visible. It can be accessed through **View > Media Player** in the main menu.
2. Double-click on the document to which the media file is assigned in the Document System to open it.



3. Click on the icon **Play/Pause**  on the "Media player" toolbar or press the **F4** or **F5** key.
4. To display the image in a video file, click the Multimedia Browser  symbol in the "Media Player" toolbar.

Note: If a transcript is empty, the Multimedia Browser will open automatically when you double-click on the text document to which the video file is assigned in the Document System. In this case, MAXQDA assumes that you wish to work directly with the video file.

24.5 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 MAXQDA 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 a professional software, for example f4 (for Windows) or f5 (for Mac) (<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.

24.6 Importing Transcripts without Timestamps and Subsequently Inserting Timestamps

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 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.

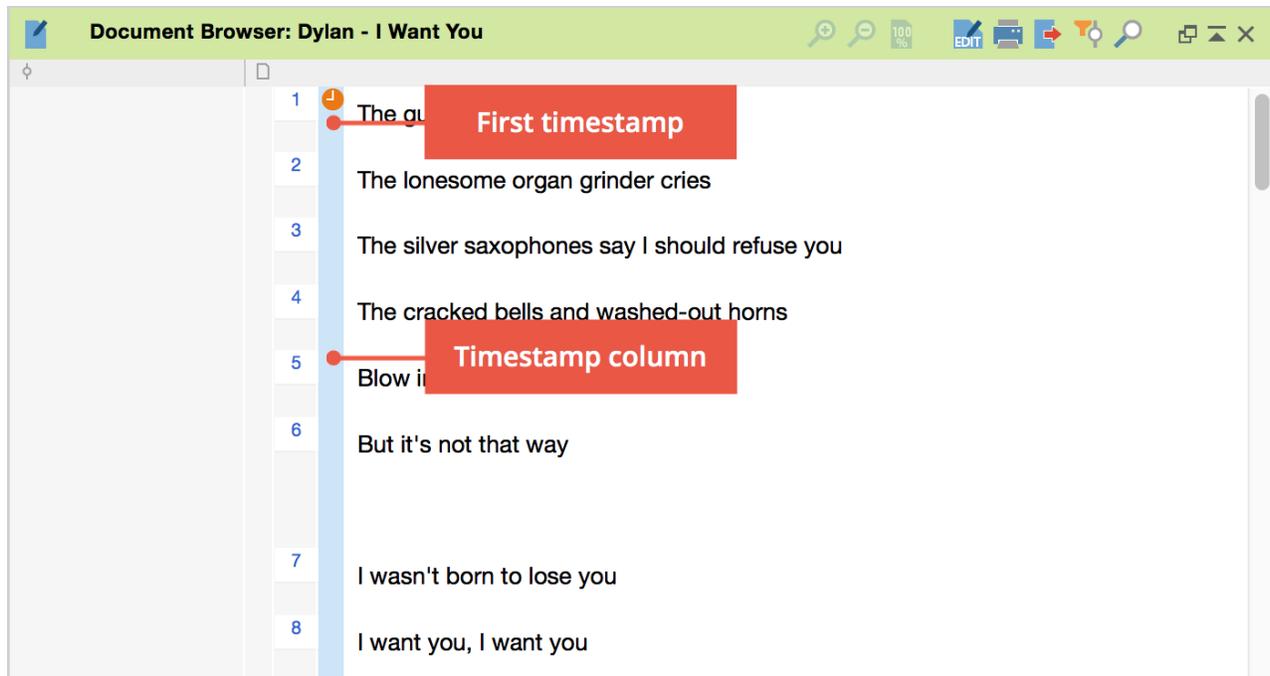
- Right-click on the document in the Document System and select **Link audio/video file**.
- In the dialog window that appears, select the audio/video file you wish to assign to the document. This assignment can later be modified by selecting **Properties** in the context menu of the document. In the dialog window that appears, you can click on the three dots in the "Media file" row to reopen the file.

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 an audio file:



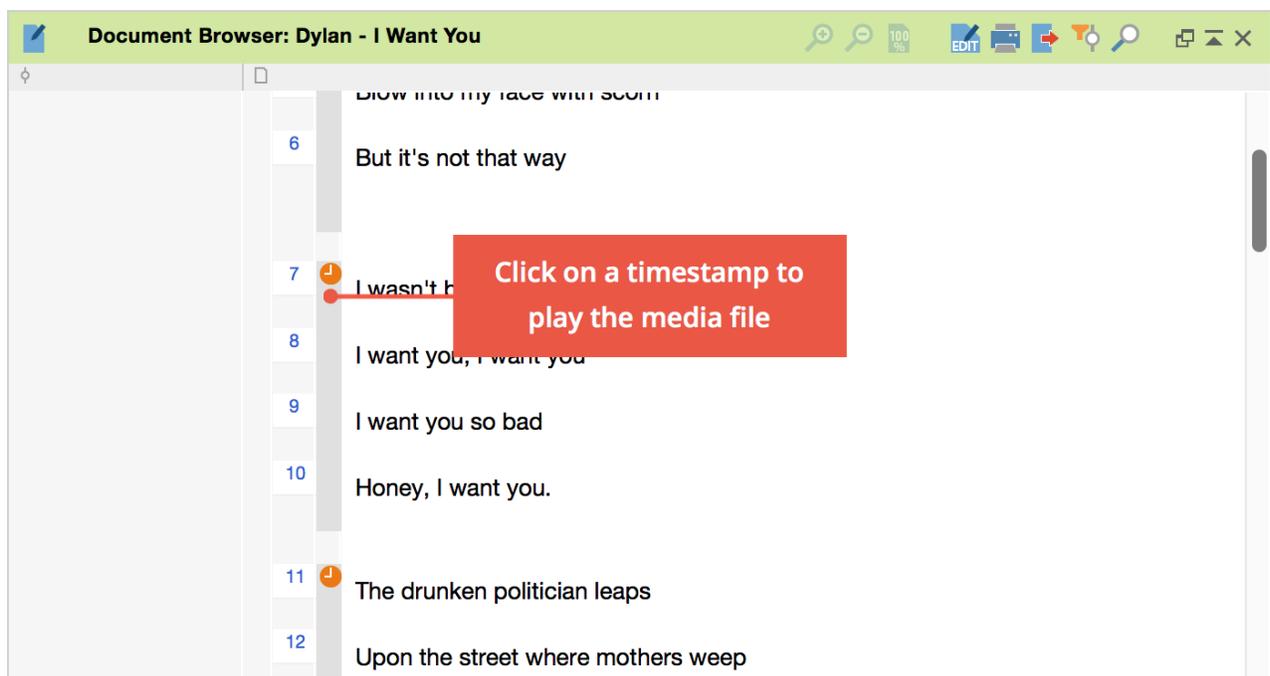
Insert timestamps into a MAXQDA transcript

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** or **F5** 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 **F6** 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

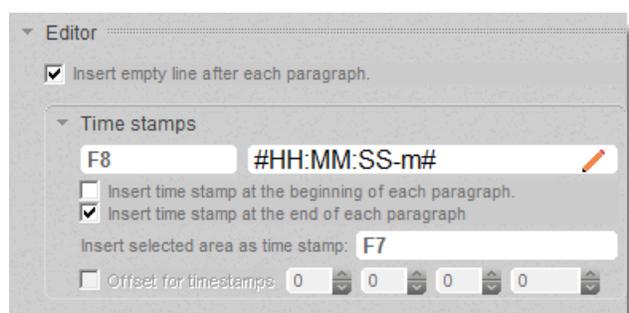
We can now use the synchronized text and audio together. By clicking on any of the **timestamps**, we will hear the song played from that point. If you do this with an interview transcript, you can in a similar way get back to various sections that you may want to hear again for tone or emphasis.

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.

Note: You can display and hide the timestamps by right clicking in a document and (de-)selecting the option **Display timestamp column**.

24.7 Importing f4/f5 Transcripts with Timestamps

When transcribing with f4/f5, 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/f5.



f4/f5 option for automatically inserting time stamps

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/f5 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.” Alternatively you can use the function Documents > Import f4/f5 transcript.
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.

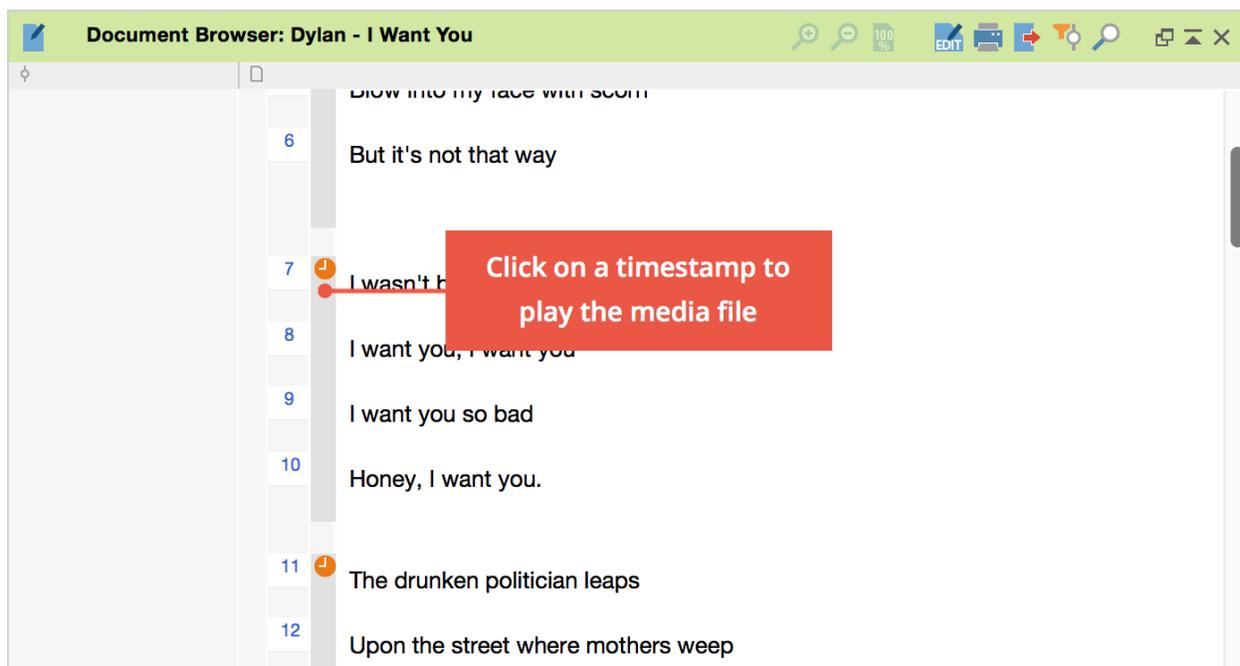


Note: The timestamps are only imported when a media file is selected. Subsequent automatic linking of transcripts with media is not possible!

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 therefore be displayed first (via the **Toolbars** drop-down menu). To load the media file click on the **Media Player: switch on/off**  button.

Texts that already contain timestamps upon import can be divided further, if necessary, with other timestamps.

24.8 Transcribing Directly in MAXQDA: Transcription mode

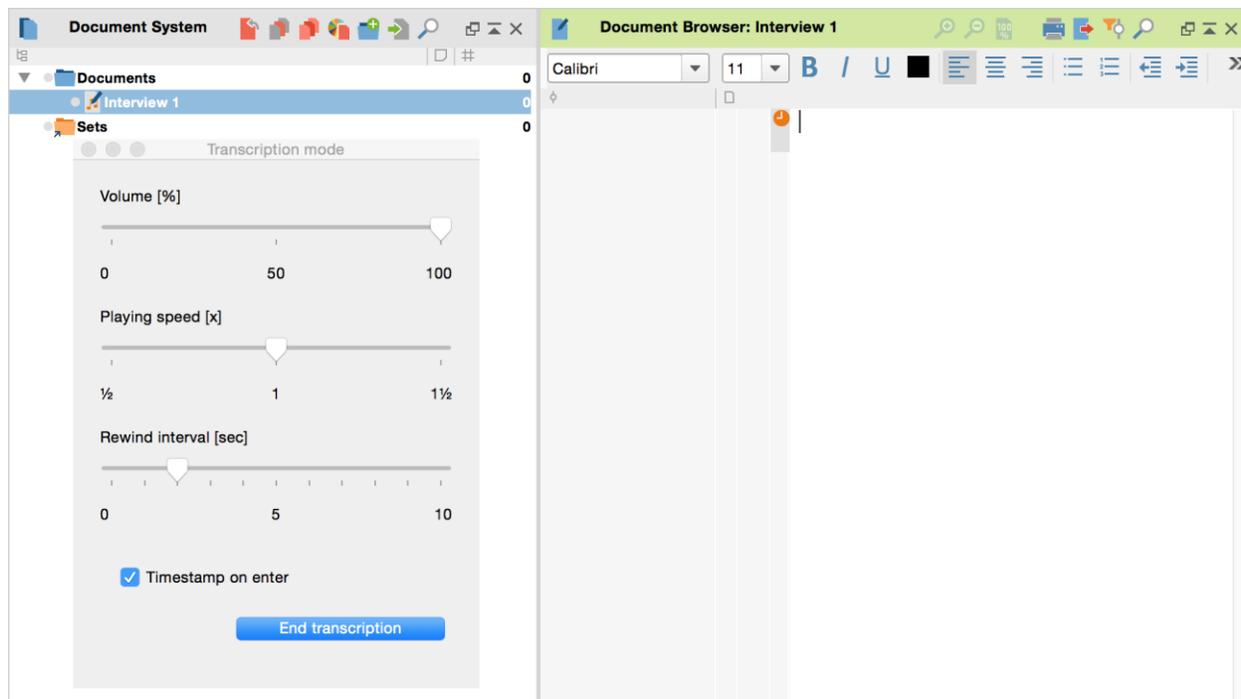
It is also possible to transcribe audio and video files directly in MAXQDA. To do so:

1. Call up the function via **Documents > Transcribe audio/video data**. This option can also be accessed by right-clicking on a document group or the root of the Document System.
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.

Tip: If you have already imported the media file into the “Document System” and have transcribed a part of the file, right-click on the document and select the entry **Transcribe audio file/video file**.

A small dialog window entitled “Transcription Mode” will open, which remains visible throughout the transcription.



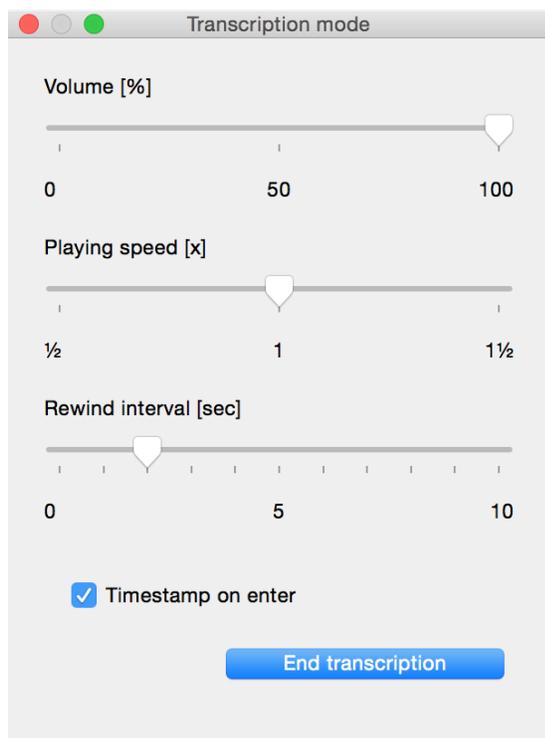
Empty transcript in the “Transcription mode” window

From this point on, you can play data on MAXQDA's 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, playback options in the “Transcription mode” toolbar as well as various keyboard shortcuts:

-  **New timestamp F6** – inserts timestamp into the transcript at the current playback position. You can insert a timestamp between two existing timestamps, so long as the current playback position is located between them.
-  **Previous timestamp (Shift+F3)** – jump to previous timestamp in the media file.
-  **Stop** – stops playback and returns to the beginning of the file.
-  **Play/Pause (F4 or F5)**– stops playback at the current position and continues at the same point – using the rewind interval.
-  **Next timestamp (F3)** – jump to next timestamp.



You can also access further transcription options in the “Transcription mode” window.



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** – If this option is selected, a timestamp will automatically appear in the “Document Browser” each time you press the Enter key.

Note: The latest state of the transcription text is saved every 5 minutes automatically in the MAXQDA project file. You can adjust this time interval under **Project > Preferences ...** (Windows) or **MAXQDA12 > Preferences** (Mac).

End transcription and continue transcription

As soon as you have clicked the Button **End Transcription** the transcript text will be saved in the MAXQDA project file, the options window will be closed, and the transcription mode will be closed. To continue a transcription **right click on a document in the “Document System” window** and select the menu option **Transcribe audio file / Transcribe video file**.

Transcription using foot pedals

For faster and easier transcription, MAXQDA supports the foot pedals “Science” and “Science II” from the company audiotranskription.de/english:

- The yellow “Science” switch has the same functionality as the **F4** or **F5** key (depending on the software setting inside the foot pedal): press once to play, and a second time to stop.
- The black “Science II” switch must be held down to play media data, and will stop playing when released.

24.9 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** or **F5** key. You can also click on a timestamp in the document.

24.10 The “Overview of Timestamps”

The “Overview of Timestamps” 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. The “Duration” column provides the length of the respective segment.

The screenshot shows a window titled 'Timestamps' for 'Document: Interview 2'. It contains a table with 9 rows of timestamp data. The first column has a clock icon for each row. The table has four columns: 'Begin', 'End', 'Comment', and 'Duration'.

	Begin	End	Comment	Duration
🕒	00:00:00.0	00:00:12.4	Introduction	00:00:12.4
🕒	00:00:12.4	00:00:33.4		00:00:21.0
🕒	00:00:33.4	00:01:00.4		00:00:26.9
🕒	00:01:00.4	00:01:20.7		00:00:20.3
🕒	00:01:20.7	00:02:01.3	Background information	00:00:40.5
🕒	00:02:01.3	00:02:29.0	Word to story prompts	00:00:27.7
🕒	00:02:29.0	00:02:45.6		00:00:16.5
🕒	00:02:45.6	00:03:17.0		00:00:31.4
🕒	00:03:17.0	00:03:21.1		00:00:04.1

The Overview of Timestamps



These Overview of Timestamps table and the “Comment” column function just like any other MAXQDA table. It is possible to sort the comments or to search for a comment.

Tip: To search for a comment, right-click on the “Comment” column and select **Search.**

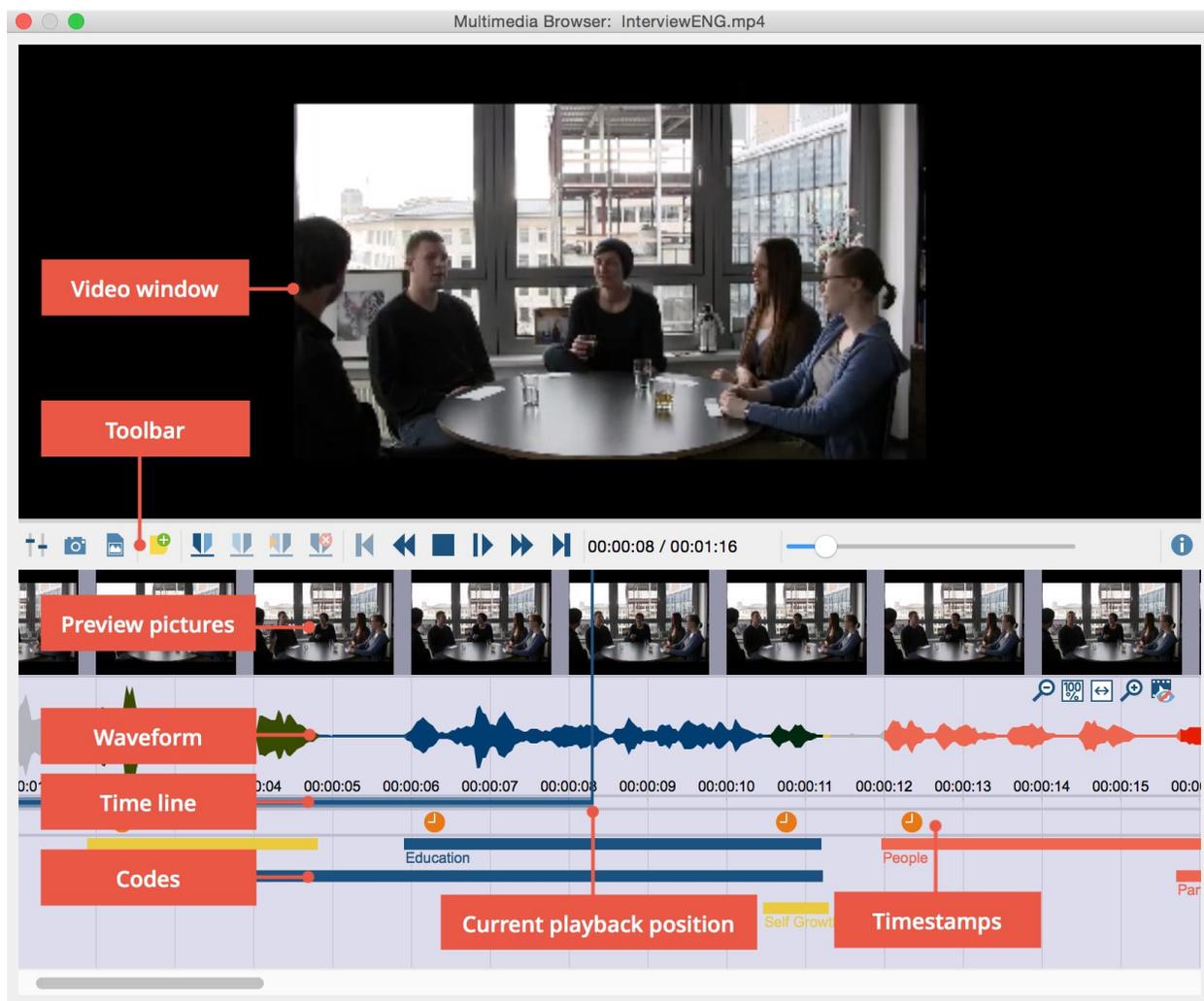
If you are importing a document with timestamps, you still have the option to add new ones once it has been imported into MAXQDA. The option to write your comments in the list of timestamps also gives you a new way to find sections of your media file. Double-clicking on a row takes you to that section of the text in the “Document Browser” and starts playback of the media file from that point.

24.11 Coding Audio and Video Files in the Multimedia Browser

The Multimedia Browser Window

Using the Multimedia Browser you can easily play and code audio and video files. To open the Multimedia Browser, click the **Multimedia Browser** icon  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”).

The following screenshot shows the structure of the Multimedia Browser:



The Multimedia Browser window

For video files, the Multimedia Browser consists of five panels:

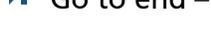
- The upper panel shows the video.
- Underneath, there is a toolbar containing the functions to adjust the view and playback and the functions for coding. Here, you can also see the current playback position and the total time of the media file.
- Beneath the toolbar, preview pictures are shown.
- Underneath, 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 of the transcripts.
- 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.

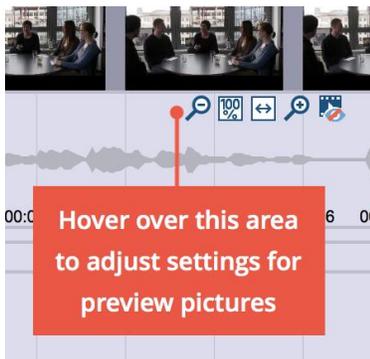
The blue vertical line and the blue bar underneath the time line indicate the current playback position.

The following functions are available on the toolbar:



-  **Control Panel** – opens the window with playback options
-  **Copy video image to the clipboard** – saves a screenshot of the current video image in the clipboard, which can then be pasted, for example, directly in a Word file.
-  **Insert video picture as an image in 'Document System'** – the currently displayed video image is inserted as a new document in the Document System, in order to, for example, code image segments.
-  **New memo** – creates a new memo in the current playback position
-  **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
-  **Previous timestamp** – rewinds the media file to the previous timestamp.
-  **Stop** – stops playback and jumps back to the beginning
-  **Play/Pause** – starts/pauses playback
-  **Next timestamp** – fast forwards the media file to the next timestamp.
-  **Go to end** – jumps to the end
-  **Slider** – helps you jump to a certain position

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.

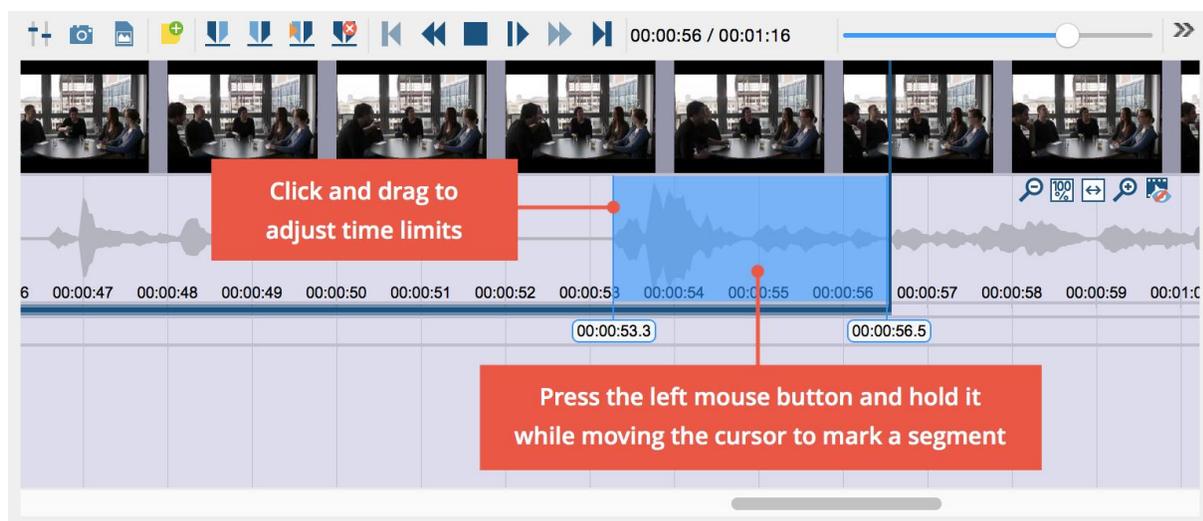
 hides the preview pictures bar.

Note: These thumbnails are generated upon the first showing. For large video files, this may take a few moments.

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.
- By using the right and left arrow keys, playback is moved by one tenth of a second. If the playback precisely matches the beginning or end of a clip, the clip is enlarged or reduced accordingly.
- To play the marked clip, click the icon **Play clip** or press the **F9** key.

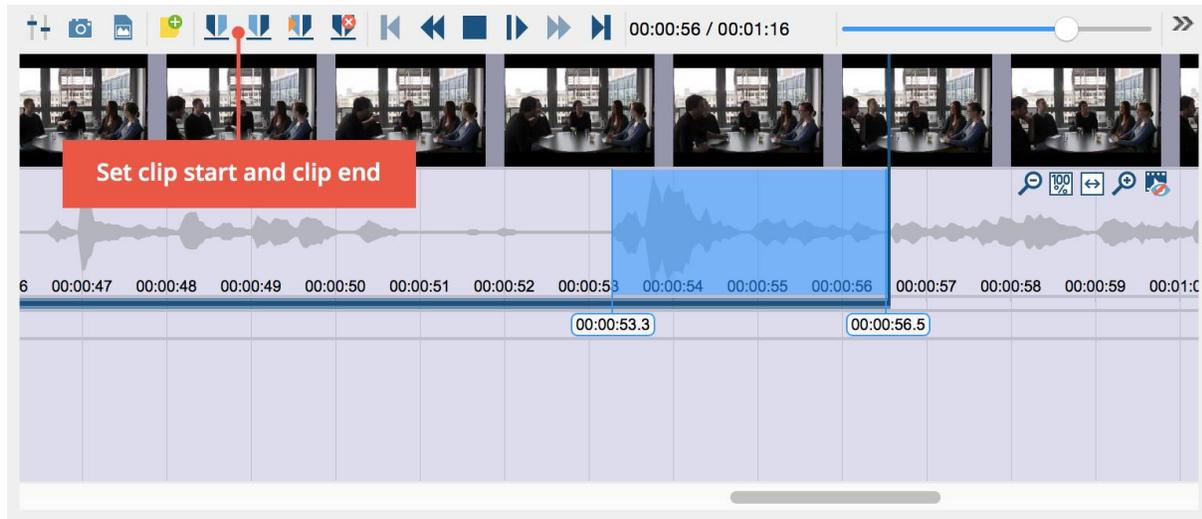


Marking a clip

- 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.

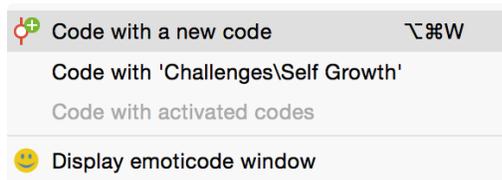


- When the playhead is at the designated position, click the button **Set clip start**  or press the **F9** key.
- Now resume playback and pause at the position where you want to end the coding. Click the button **Set clip end**  or press the **F10** key.



Setting the clip limits at the current playback position

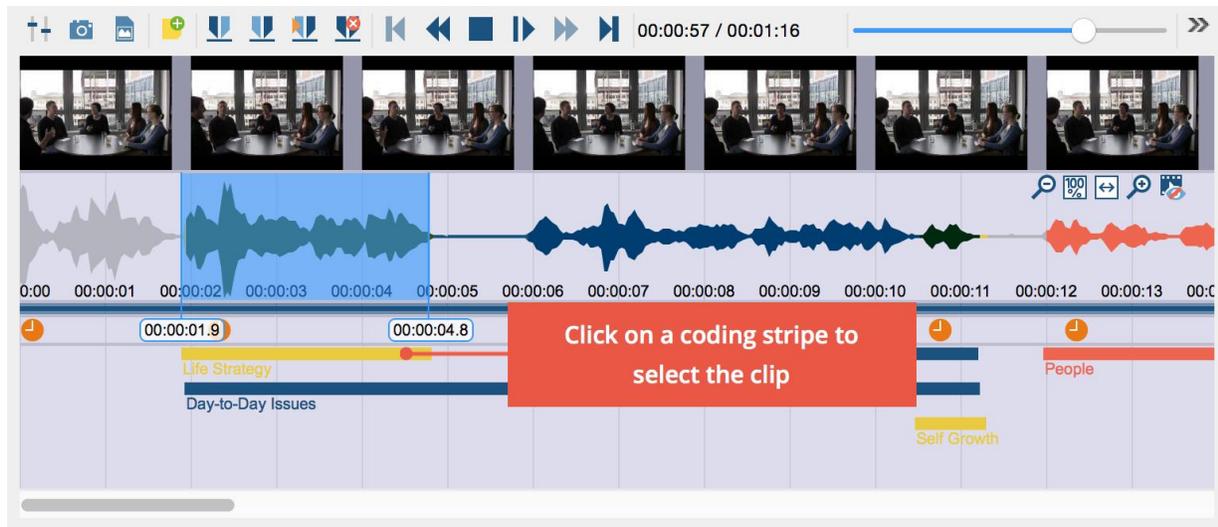
You can now code the selected segments as usual, for example by (a) dragging and dropping the marks on to a code, (b) clicking on an emoticode, or (c) by clicking a color code. Right-clicking on a marked segment opens a context menu that contains three options that are relevant for coding:



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. Segments coded with an emoticode 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:

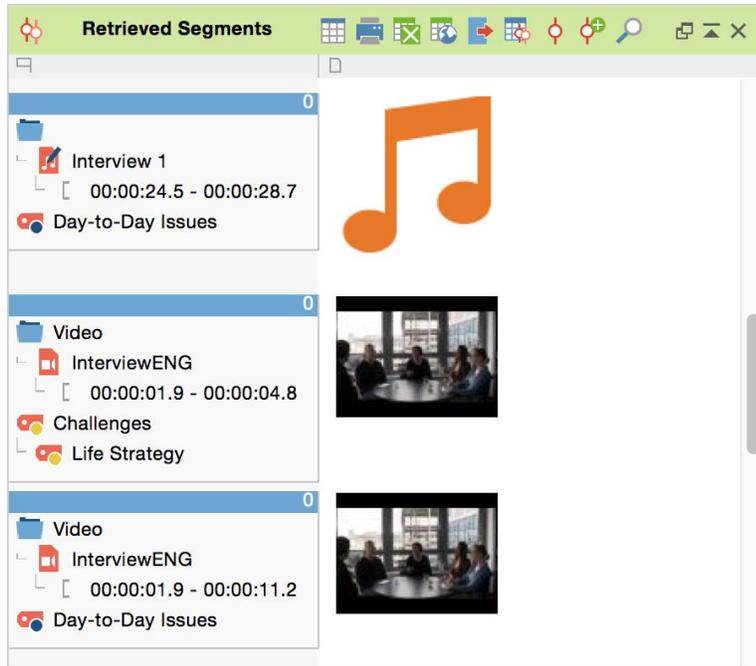
- Modify weight
- Edit comment
- Delete

Coded segments that 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.

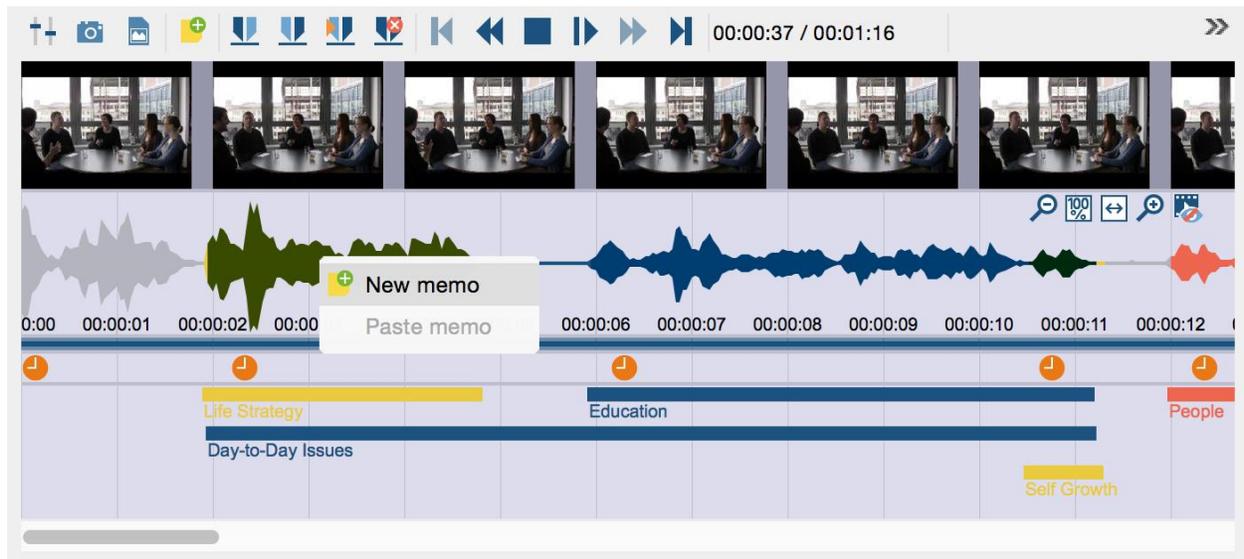


Audio and video clips in the “Retrieved Segments”

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

25 Teamwork: Using MAXQDA as a Team

25.1 How can MAXQDA support Teamwork?

In the context of scientific research, the evaluation of documents is often a collective, rather than individual endeavor. This raises the question how MAXQDA allows for teamwork.

Important: MAXQDA is a single-user, 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 three principle forms, depending on how the team members want to work together.

- **Handing over a complete MAXQDA project to another team member** – 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. The MAXQDA project is therefore passed from team member to team member, each time for further processing.
- **Exchanging coded segments, memos, summaries, etc. of a single document, document group or entire project among team members** – A MAXQDA project with all the documents to be processed is duplicated for each team member. Each member works on a pre-arranged part of the project, for example only segments coded with selected codes, or only certain documents. At the end, the coded segments, memos, etc. are transferred from the respective projects into a master project.
- **Merging MAXQDA projects** – Members of the team edit the documents of a MAXQDA project in collaboration. For example, team member A codes as document 1, 5, 6, 7 and 9, team member B codes documents 2, 3, 8 and 10, and team member C edits documents 4 and 11. Each member is working in a separate project that contains only the documents that he or she is responsible for. At the end, all three projects are merged.



25.2 Transferring a MAXQDA Project to Other Team Members

The first case is the easiest, because here you can always transfer the entire project as a MAXQDA project from one computer to another, knowing that all team members always have the same data pool. However, you can never have two people coding project documents or creating memos simultaneously on different. Evaluation in which no new codes are created, no variable values are changed and no new memos are assigned can of course be carried out simultaneously.

The transfer of MAXQDA projects is very easy: MAXQDA saves all aspects of the project in a MX12 file. If you name a project "ForumAnalysis," it will be saved on your computer as "ForumAnalysis.mx12."

The project file contains all ...	The project file does not contain ...
<ul style="list-style-type: none"> • Documents • Codes • Memos • Variables • Coded segments • Summaries • Document links • Text links • External links • Diagrams made in MAXMaps • Similarity and Distance matrices • The MAXDictio dictionary 	<ul style="list-style-type: none"> • External documents (e.g. PDF files, images, audio and video files) • Externally saved geographical references (KML files) • Saved search formulas (SEA files = search files) • Saved selections for logical activations and other mixed methods functions (LOA files = LOGical Activation files) • Saved Code Systems in MTR format

The project file can be transferred to other team members in the form of a single file. It can also be sent by email. It can also be saved in the shared folder of a cloud system, such as Dropbox or Onedrive.

If the MX12 project file is opened on any other computer where MAXQDA 12 is installed, the entire project appears with all its components.

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 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 be saved in the project file, but rather in a folder for external files (path listed under **Project > Preferences** (Windows) or **MAXQDA 12 > Preferences (Mac)**). If you want to share these files along with the project file, follow these steps:

1. Send the project (MX12) file.
2. Group all the external files together by selecting **Project > Bundle external data files**. A compressed ZIP folder with those files attached to the project will then appear in the same folder as your MX12 file, which you can then send to your team members
3. Pass on this file to your fellow researchers. The file can be very large, especially if it contains audio and video data. It can therefore not be sent via email but rather using a cloud system or USB stick.

Procedure for Receiving the Files

1. Open the MX12 file.
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.

25.3 Transferring Coded Segments, Memos, Variables, etc. from one Project to another

MAXQDA also supports another 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. However, different team members are not required to process the documents in the same order, nor must the number of documents be the same on each computer, meaning different computers can have more or less documents available in the "Document System."

Tip: Each document must be identical in form for all team members or computers, meaning the number of paragraphs and the actual text must correspond completely and accurately. The formatting, however, for example font type and size, does not need to be the same.

The following example is set up for only two different computers, but the same principle works for as many computers as you require.

Computer 1

Project with documents A, B, C and D

Computer 2

Project with documents A, B, C and E, F

The document pool does not need to be exactly the same, in the sense that all documents available on computer 1 must also be available on computer 2.

The codes do not need to be the identical, but in a research team you should of course ensure that the same category, meaning the same code, is assigned the same name and does not differ among each team member.

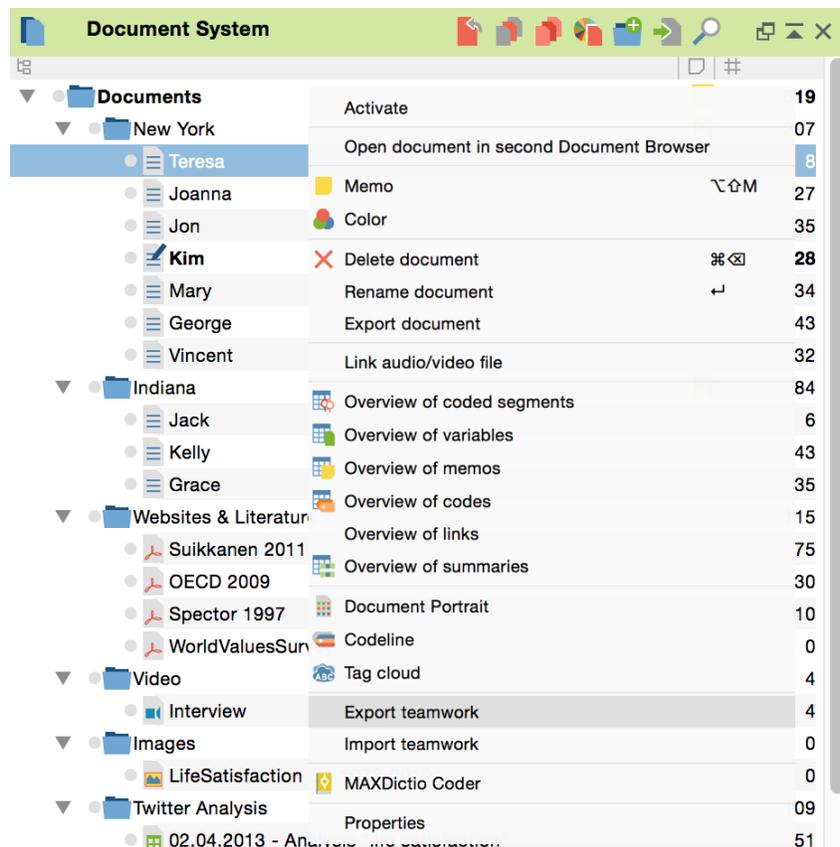


Exchange of Coded Segments, Memos, Variables, etc. for a document

If “Interview 1” was coded on Computer 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 Computer 2 would be lost. It is necessary in this case to simply transfer the work done on that single document.

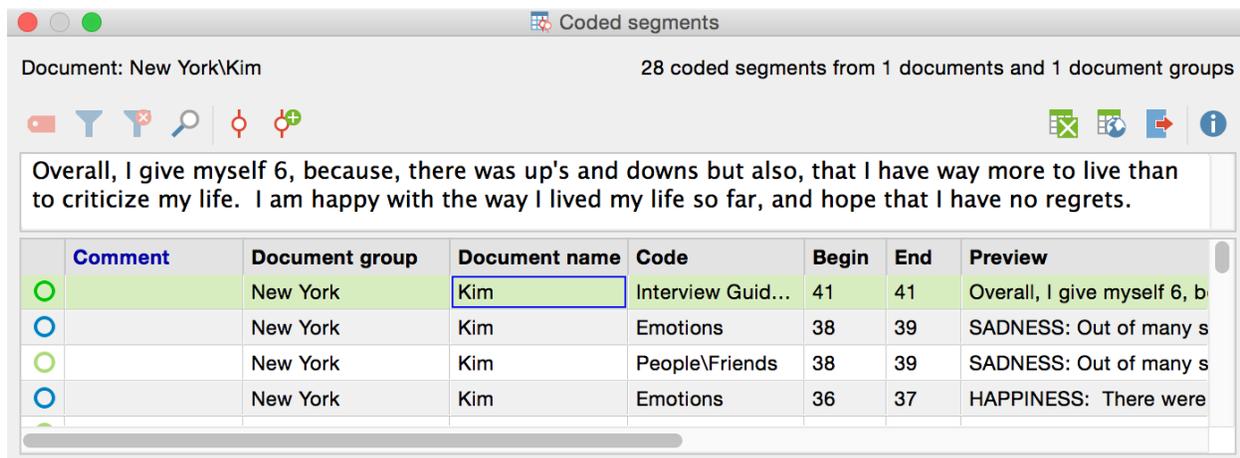
In MAXQDA, you can do this as follows:

1. The person working on Computer 1 right-clicks on the text “Interview 1” in the “Document System”
2. He then selects the option **Export Teamwork** from the context menu, and selects the file name and saving location. The document name will be proposed as the name for the saved file, which in general should be used.
3. MAXQDA then saves a file containing all the information about this document, including coded segments information, memos, variables, and external links. All codes, coded segments, memos, variables and external links will be included in the file. The file will have the extension (Max-EX-change format), allowing for easy recognition later.



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 coded segments in the “Overview of Coded Segments”

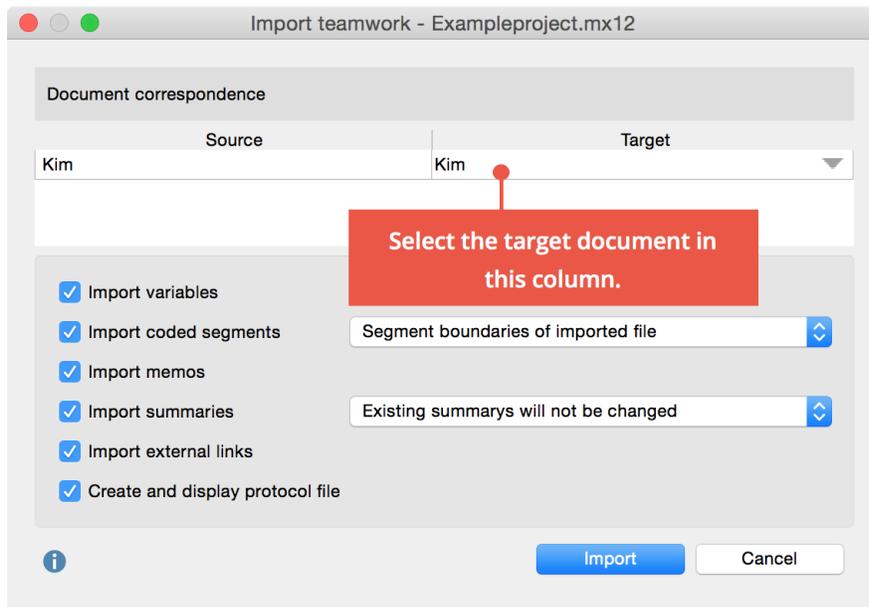
You can then export this table and/or copy it to the clipboard and paste it into a word processing document, so you can print it out.

Note: The “Teamwork export” file contains *all* coded segments, memos, variables, summaries, 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 into the target project

The exported file can be imported on any computer 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 Computer 2. Then choose **Teamwork import** and choose the appropriate file in the dialog window. You will then see a dialog field where you can check the source and target documents. As long as the documents on Computer 1 and Computer 2 have the same names, you don’t need to change anything, since MAXQDA will already assume this is the document for which you wish to import the MEX file. If the documents have different names, this will need to be corrected.



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.

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.

When you import a coded segment it may occur that at the same code has already been assigned to the respective coded segment, perhaps with slightly different segment boundaries. Since in MAXQDA a document segment can be coded only once with a code, you can decide which segment boundaries should be maintained via the drop-down menu:

Segment boundaries of imported file – This is the default selection: In case of conflict the newly added coded segment and its boundaries are adopted.

Segment boundaries of the opened project – In case of conflict the existing coded segment will be retained, so it will not make any change to the code.

OR-combination of segment boundaries – In case of conflict, the outermost boundaries of both coded segments will be adopted.

AND-combination of segment boundaries – In case of conflict, the intersecting area of both codes is adopted as the coded segment.

When importing summaries, you can also control how MAXQDA should proceed in case of conflict:

Existing summaries will not be changed: With this setting, only empty summaries are imported. In case of conflict imported summaries are therefore ignored.

Imported summaries overwrite existing ones – In case of conflict, existing project summaries will be deleted and overwritten with imported summaries.

Add imported summaries to existing ones – In case of conflict the imported summaries will be added to the existing summaries.

Click on **Import** to begin the process.

MAXQDA's Import Process for Coded Segments and Memos

MAXQDA proceeds as follows with the imported coded segments:

- All coded segments existing in documents before the import procedure will be maintained or adjusted, depending on the selected option.
- Previously non-existent encodings will be inserted into the open project.
- If in the Teamwork file a segment coded with a code or subcode not yet in the Code System is found, this code will be recreated and inserted in the appropriate position in the Code System. Codes with the same name at the same position will thereby be regarded as identical; their color will not be taken into account.
- Coded segment comments will not be included if a coded segment with the same segment boundaries already exists.

Document memos within a document are always imported (exception: memos at the same start 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, their values will be updated and consequently overwritten.

To make sure that the import procedure was carried out correctly, it is recommended that you open the document in order to review of the newly inserted coded segments. You can also obtain a list of all coded segments with the "Overview of coded segments".

Exchanging Coded Segments, Memos, and Variables for Document Groups or the Entire Project

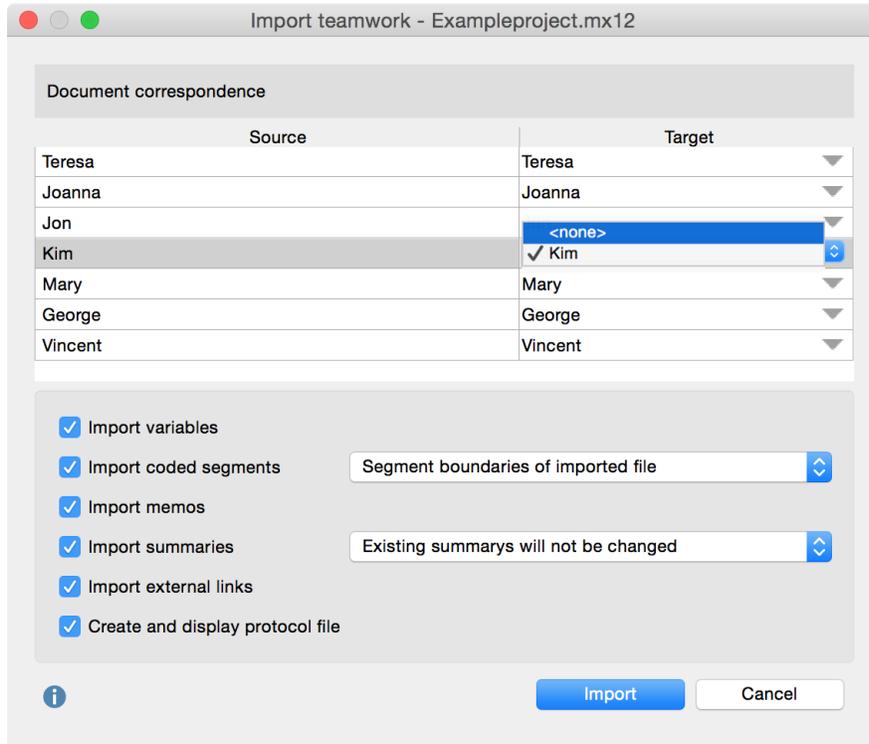
In MAXQDA, the document-related exchange of coded segments, memos, and variables is possible for document groups or even the entire project.

The same rules will apply as with individual documents. To start the import function, right-click on the document group, or, if you wish to exchange the entire project, on the root of the Document System, and choose **Export Teamwork** from the context menu that appears.

When importing, therefore, the document group, rather than the single document, must be clicked. Once you have selected **Import teamwork** and selected the MEX file format, a dialog window will appear which lists the assignment of source and target texts. Here you have the option to make



changes to the automatic assignment by MAXQDA. In order to do so, double-click the text in the target column. You can access a list with all the texts of the document group by clicking on the small triangle in this field. Here you can optionally select a different text as the target of the import..



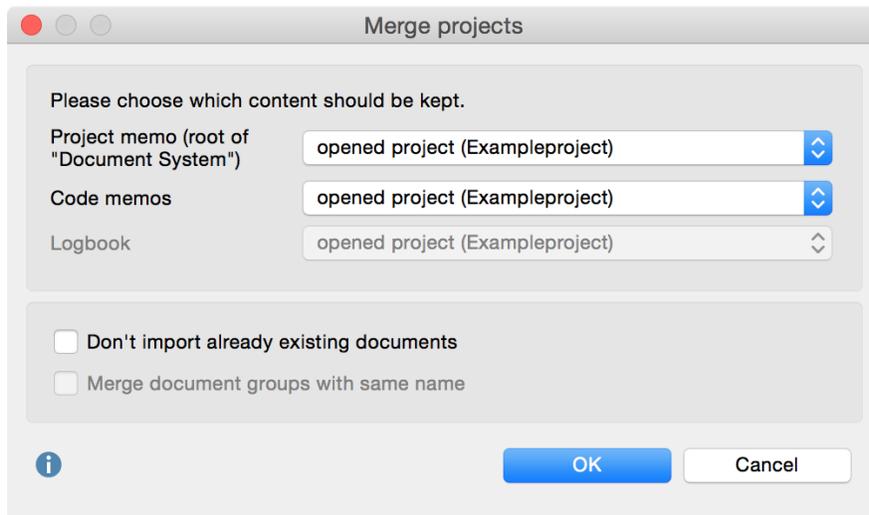
Options when importing teamwork for an entire project

25.4 Merging Two 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 second project from the dialog window, which will be in the form of an MX12 file.

The following dialog window will appear:



Options for merging projects

Because a MAXQDA project can contain only one project memo, one memo per code, and one Logbook, you can choose, in the top section, what content should be kept and what should be overwritten. When the default settings are left as is, the existing data in the already opened project will remain unchanged.

In the bottom section, two options are available that allow you to determine how MAXQDA should handle documents whose identical name already exists in the project.

Don't import already existing documents – When the projects are merged, by default, all documents from the imported project are inserted into the open project. When you select this option, already existing documents will be ignored, thus not imported. For example, if the open project contains the document group “Interviews” with documents A, B, and C, and the imported project contains the document group “Interviews” with the documents A, B, and D, document D will be imported and inserted into a second document group.

Merge document groups with same name – This option is available only when the previous option is selected. In this case, no further document groups with the same name will be created, and the imported documents will be integrated into the already existing document group. This means if the document group “Interviews” with documents A, B, and C already exists, only document D will be imported.

When you click OK, MAXQDA then starts the merging process, which may take some time, depending on the size of the two projects.

Note: Before merging the projects, MAXQDA automatically creates a backup of the current project in the selected backup folder.

The merge function is carried out in the following manner:

- All document groups of the imported project will be inserted with their documents, possibly generating duplicates. If a text group entitled “Interviews” exists in both projects, the resulting merged project will have two text groups of this name. The options above can be set so that already existing documents are ignored and so that no duplicate document groups are created.



- All memos of both projects will be inserted.
- Coded segments will be merged; in the case that a code or subcode does not exist in the new project, it will be created. Codes with the same name and same position will be considered identical; their color is not relevant.
- Summaries will be imported.
- All internal and external links will be imported.
- Each variable will be analyzed to determine if it already exists in the project.

If the variable does not exist in the open project, a variable of that name will be created. The variable values of the documents in the open project will be set to 0 or to the preset missing value for numerical variables, or empty for text variables.

If a variable exists with another type declaration, it will be created. Suppose the open file contains the text variable "marital status" and the file to be added contains a numerical variable of the same name. The result is that after import two variables entitled "marital status" will exist; for the old project the numerical variable will be set to 0 and for the new project the text variable will be left blank.

- Codes that have been transformed into variables will be ignored.

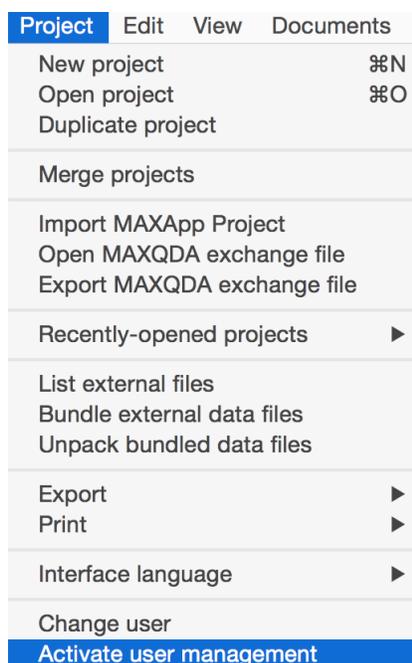
26 Admin System for User Management

26.1 Calling Up and Activating User Management

MAXQDA supports teams working on projects with an optional user management system, in which you can set different rights for different groups of users.

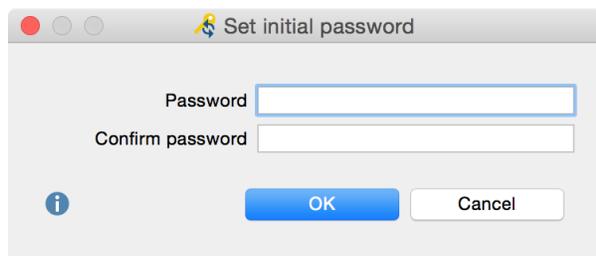
Note: The admin system is not designed to ensure secure of your projects, just for working together in teams.

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.

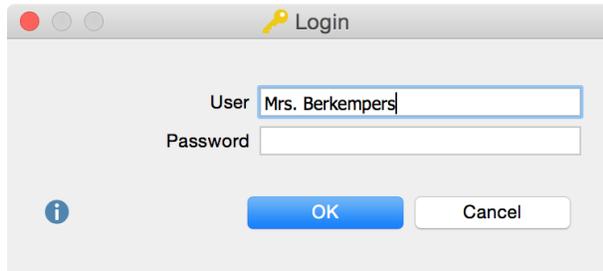


Set admin password



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.

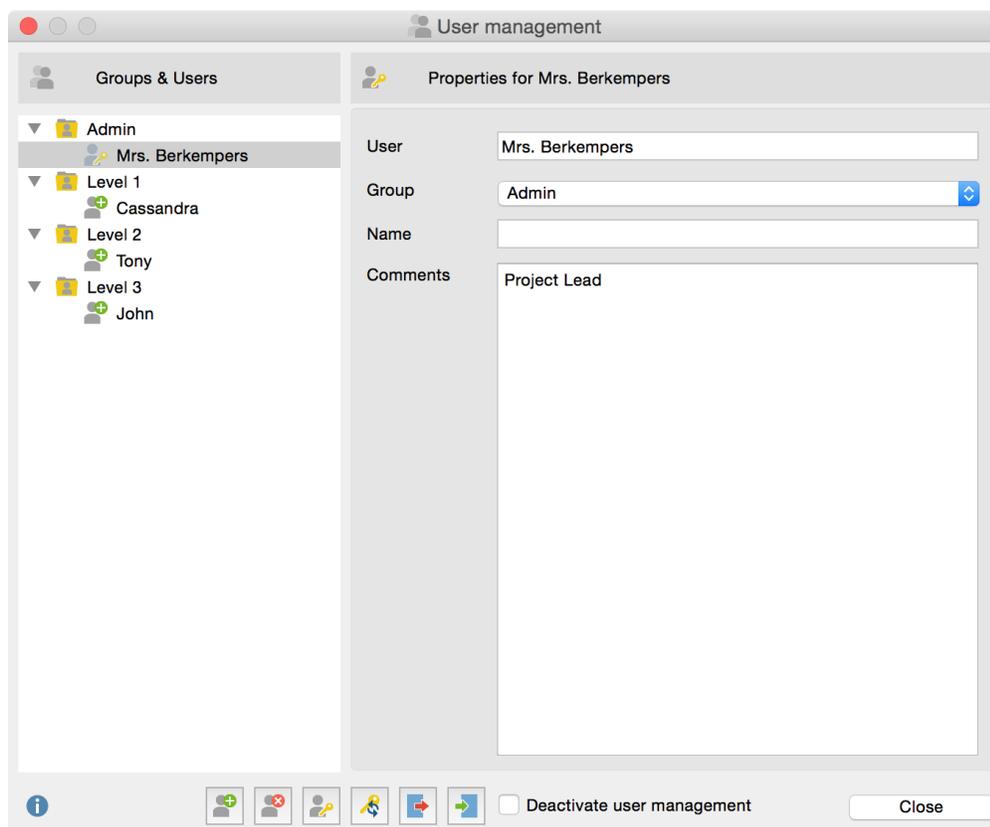


Login window

In the default configuration, only administrators are able to open the user management, add users or change rights.

26.2 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

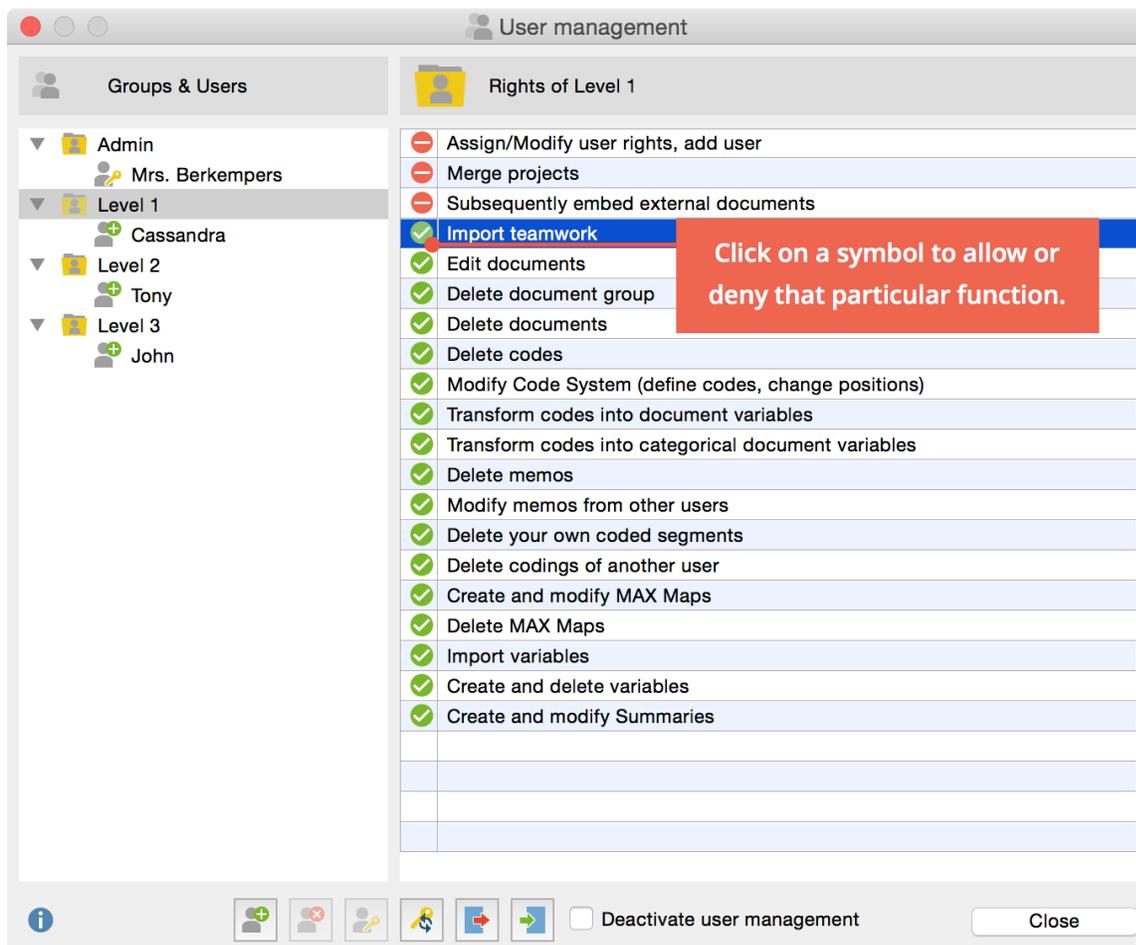
The purpose of the initial password is to act as a barrier to entry into the project. New users must enter this password the first time they log into a locked MAXQDA project, before setting their personal passwords.

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

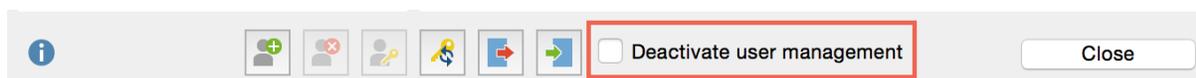
Click on a user name in the left side of the window in order to modify settings in the right side.

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.

27 Reports

27.1 Smart Publisher

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

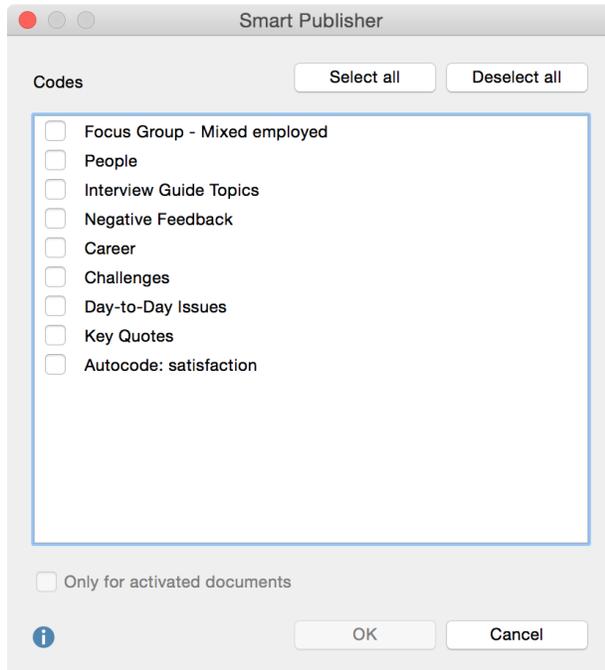
Smart Publisher can be accessed by clicking the icon in the main menu, or **Reports > Smart Publisher**.



Opening Smart Publisher

Note: To use Smart Publisher with Windows, Microsoft Word Version 2003 or more recent must be installed.

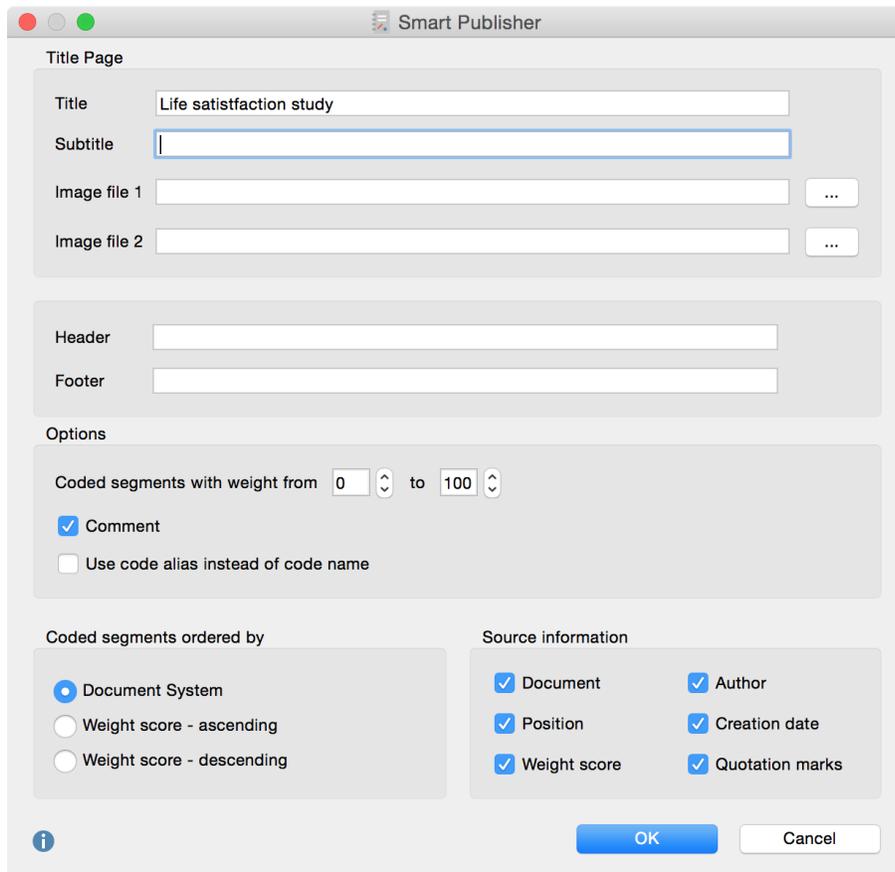
When Smart Publisher is called up, a dialog window will appear in which you can select the codes to be included in the report. When top-level codes are selected, their corresponding subcodes will automatically be included in the report. You can also choose to include coded segments only from activated documents.



Selecting top-level codes for Smart Publisher

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:



The image shows a 'Smart Publisher' settings dialog box. It is divided into several sections:

- Title Page:** Contains text input fields for 'Title' (filled with 'Life satisfaction study'), 'Subtitle', 'Image file 1', and 'Image file 2'. Each image field has a browse button ('...').
- Header and Footer:** Contains text input fields for 'Header' and 'Footer'.
- Options:** Includes a range selector for 'Coded segments with weight from 0 to 100', a checked checkbox for 'Comment', and an unchecked checkbox for 'Use code alias instead of code name'.
- Coded segments ordered by:** A group box with radio buttons for 'Document System' (selected), 'Weight score - ascending', and 'Weight score - descending'.
- Source information:** A group box with checked checkboxes for 'Document', 'Position', 'Weight score', 'Author', 'Creation date', and 'Quotation marks'.

 At the bottom, there is an information icon (i), an 'OK' button, and a 'Cancel' button.

Smart Publisher settings

“Title” Section

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 and 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.

“Header and Footer” Section

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

“Options” Section

You can limit the output to segments where a weight was assigned in a defined area.

Comment – Below a coded segment, its comment is also output.

Use code alias instead of code name – The code alias will be used in the place of the code name as a heading, if defined for the respective code (see [Creating a Code Alias](#)).

“Source information” Section

In the “Source information” 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:”

Career

1. "Feel free to discuss past, present and/or future career path isly interested in it, especially the counseling and helping others part of the gig but its not my passion. I'm an extremely creative person and have a passion for art and film. If I had my choice in occupation I would definitely choose to be a movie director. I make movies anyway and will continue to do so, and it would be my dream to be a real movie director but chances are slim of this happening so sues."
[New York\George; Position: 9 - 9; Author: Julia]
2. "One could have all the money in the world and the best career but not be satisfied with life."
[New York\George; Position: 65 - 65; Author: Julia]
3. "On a scale of 1-10, how satisfied are you with your career path?"
[New York\Joanna; Position: 5 - 5; Author: Julia]

Extract from a Smart Publisher report

Word template section (available only in MAXQDA for Windows)

Here you can indicate which Word template Smart Publisher should choose. The Word template determines the appearance of the report and can be easily modified (see below)

After clicking **OK** and choosing a file name and location, Smart Publisher starts to create the report. This may take a moment to complete depending on the number of coded segments to be exported.

Note: While the Smart Publisher creates your report, you should not use Word, as the preparation of the report could be affected.

The Finished Report

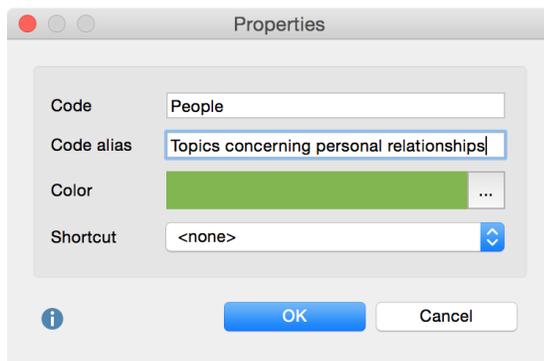
The finished report is in the form of a Word document (for Windows in DOCX format, for Mac in RTF format), which includes a title page, table of contents, a page that lists of all the documents included in the report, and the main section including all of the exported segments. If a header/footer was 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.

Alias Names for Codes

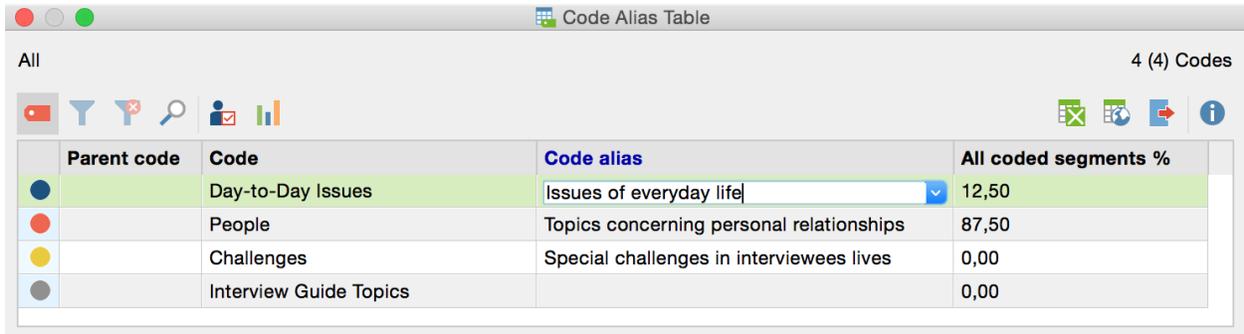
Smart Publisher uses the code names from the “Code System” as headings for the individual sub-chapters of the report. However, you may wish to assign an alternate name to some or all of the subchapters in the report. This may be the case if the 63 characters per heading allowed by the system are not 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 “Properties”. A dialog window will appear, in which you can enter the code alias.



Assigning a code alias in the Code properties window

From the menu **Codes > Code alias table** you can call up a table, in which you can conveniently create code aliases for multiple codes, and can see for which codes a code alias has been assigned.



Parent code	Code	Code alias	All coded segments %
	Day-to-Day Issues	Issues of everyday life	12,50
	People	Topics concerning personal relationships	87,50
	Challenges	Special challenges in interviewees lives	0,00
	Interview Guide Topics		0,00

Code Alias Table

The Word Template for Smart Publisher (only for Windows)

Upon installation of MAXQDA for Windows, two document templates named "MXReport_A4.dot" and "MXReport_Letter.dot" will be installed in "MAXQDA12" folder (or on the USB device with a portable installation). 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.

27.2 Creating a Codebook with Category Definitions

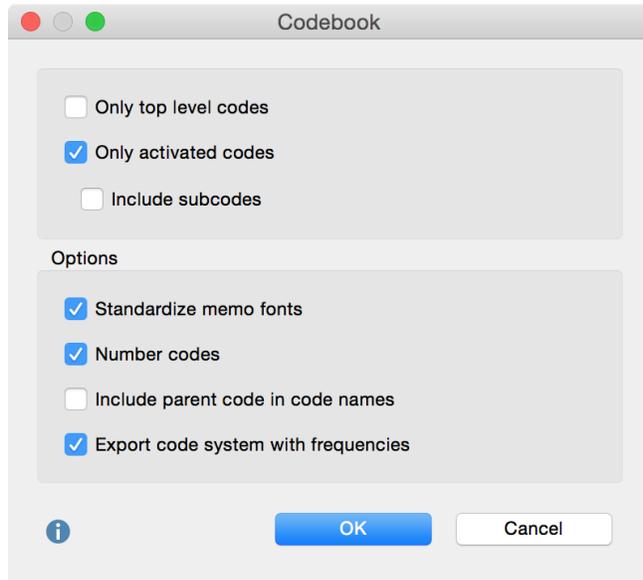
The "Export Codebook" function allows you to automatically generate a Codebook – i.e. a category manual. The codebook lists all or selected codes in the order of the Code System and also outputs the associated code memo for each code. The completed Codebook therefore contains the category definition of each individual code, provided that this was recorded in the code memo. This saves a lot of work in the creation of the annex for a research report, especially since it provides the opportunity to unify the font for all memo text.

The Codebook is created in RTF format and can therefore easily be opened with word processing programs such as Word. It includes a cover page with the title "Codebook", the project name and



the creation date. On the following page, the Code System is listed in a table. In the main section, the respective codes with their associated memos are listed in the order of the Code System.

The Codebook function is accessed through the menu **Reports > Codebook**. A window will appear in which you can specify the Codebook options in more detail.



Setting options for the Codebook

In the top section of the window, you can specify which codes should be included in the Codebook.

Only top level codes - If you select this option, only the codes in the top level of the Code System, with their associated code memos, will be included. Subcodes will not be included.

Only activated codes - In this case, only activated codes will be included in the Codebook. You can decide whether (inactivated) subcodes should also be included: **Include subcodes**. This option is not available if you have selected **Only top level codes**.

Note: In general, only codes that include a code memo will be exported.

Other options can be set in the lower section:

Standardize memo fonts - If the font, font size, etc. varies between memos, they can be uniformly displayed in the Codebook using this option.

Number Codes - If this option is selected, the listed codes will be numbered according to their hierarchy in the Code System.

Include parent code in code name - If this option is selected, the code path will be specified as a heading for the subcodes.

Export code system with frequencies - If this option is selected, a column containing the code frequency will be added in the table overview of the code system.

After confirmation, select a name and location for the file before the Codebook is created and opened.

27.3 Code Frequencies per Document, Document Group and Document Set

How frequent is a code in a document, a document group or a document set? The **Reports** menu contains three functions that are designed to answer these questions:

1. Code Frequency per Document
2. Code Frequency per Document Group (available only when document groups exist)
3. Code Frequency per Document Set (available only when document sets exist)

In principle, it is a shortcut to the MAXQDA Code Matrix Browser, which provides report output with the following options:

- Code frequencies will be displayed in the intersections of documents and codes.
- Only activated codes and documents will be displayed. When no codes are activated, all will be included in the display; the same applies for documents.
- All codes will be collapsed, regardless of their status in the Code System, and their code frequencies will be aggregated.
- The columns will contain either documents, document groups or documents sets, depending on the function that was called up. For document groups and document sets, the code frequencies of the respective associated (eventually activated) documents will be aggregated.
- The sum row and sum columns will be displayed.

The screenshot shows the 'Code Matrix Browser' window with a table of code frequencies per document. The table has columns for documents (Teresa, Joanna, Jon, Kim, Mary, George, Vincent) and a 'SUM' column. The rows represent codes, grouped under 'Code System' categories like 'Day-to-Day Issues' and 'People'. A 'SUM' row is at the bottom.

Code System	Teresa	Joanna	Jon	Kim	Mary	George	Vincent	SUM
Day-to-Day Issues								0
Emotions	1	2	4		4	2	2	15
Education		3	3		5	1		12
Interests			2		1	5		8
Money and Financial Issues			1			2		3
Religion and Spirituality			1					1
Significantly Positive		4	4		2	2	6	18
People		1	1		1	1	6	10
Friends		2			4	3	1	10
Parents	1	2	2		2	2	1	10
Partner		1	4		3	2	1	11
Siblings					1	2	1	4
SUM	2	15	22	0	23	22	18	102

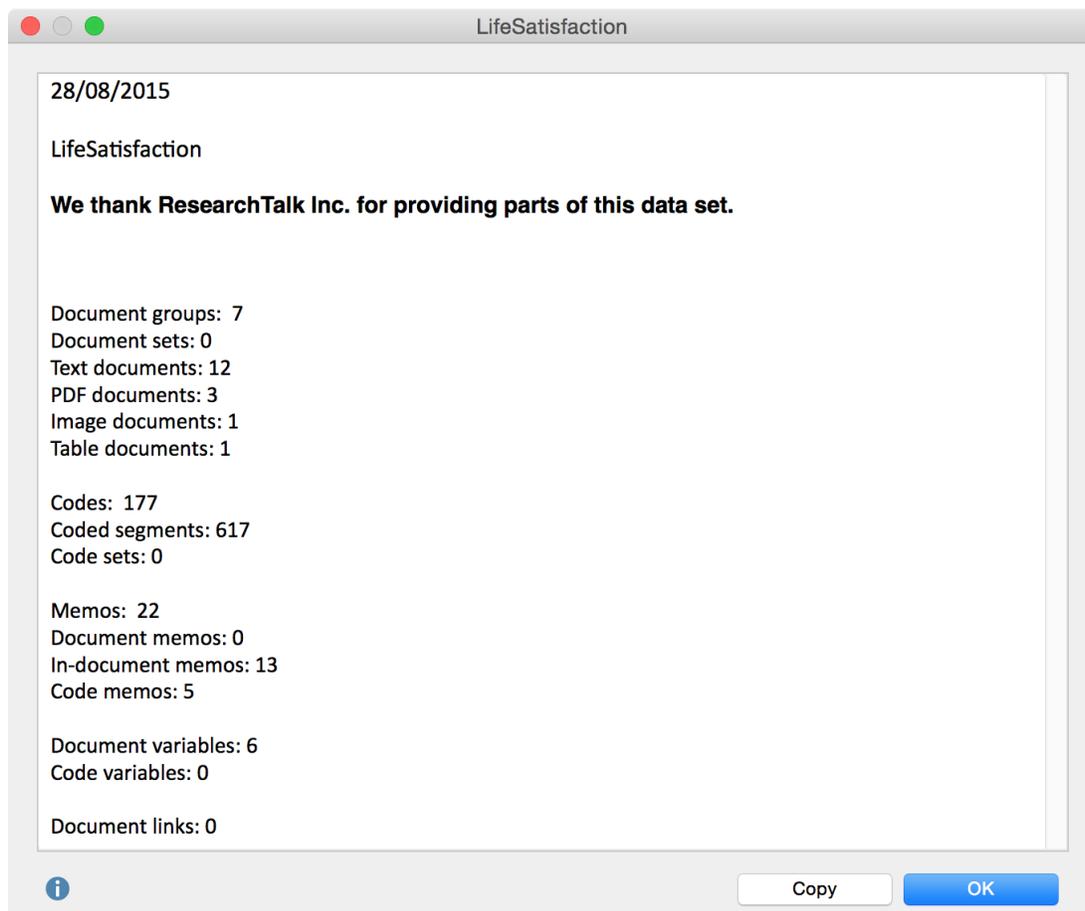
Code frequency per document

27.4 Project Information

The function **Reports > Project Information** collects information about the current project and shows the completed report in a separate window. Specifically, Project information contains the following data :

- Report date
- Name of the MAXQDA 12 project file
- Project Memo (from the root of the Document System)
- Number of document groups, document sets, and the individual document types
- Number of codes, coded segments, and code sets
- Number of memos
- Number of document and code variables
- Number of document links

Project information can be copied to the clipboard with the **Copy** button, and from there transferred into another program such as Word.



Project information

28 Project Organization and Data Security

28.1 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 MX12. In order to secure your work, it is recommended that you back up this file regularly on an external backup device, such as a USB stick, external hard drive, or cloud location. 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 or Mac Finder. MAXQDA 12 projects always have the file ending MX12, (or the file type "MAXQDA 12 Project) and the projects from previous MAXQDA versions have the endings MX11, MX5, 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 or Mac 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 or Mac Finder, not within MAXQDA. Right-click on the project file and select **Rename** from the context menu that appears.

Duplicating a Project

A copy of your project, for example for backup purposes, can be generated easily in Windows Explorer or Mac Finder. Alternatively, you can duplicate the project directly in MAXQDA:

1. From the main menu, select **Project > Duplicate project**.
2. Choose the folder that you would like to save the file in.
3. Assign a name to the file.



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. However, MAXQDA will ask if you would like to work with the duplicate project.

28.2 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 or Mac Finder. Alternatively, you can open the project in MAXQDA and select **Project > Duplicate project**. Then select the destination location and file name 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. MAXQDA automatically 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 > Preferences** (Windows) or **MAXQDA 12 > Preferences** (Mac). 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!

29 Import/Export Options

29.1 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 > Export > Displayed document Right-click on the document name 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 (Windows) or cmd+C (Mac) or by selecting Copy from the Edit drop-down menu.	Formatted text in the clipboard
One or more coded segments	Highlight the segments by clicking on them while holding the Ctrl or cmd button and choose the export option or copy with Ctrl+C or cmd+C	XLS/X, HTML, RTF, clipboard
All coded segments in the "Retrieved Segments" window	Project > Export > Retrieved Segments or with the icon in the "Retrieved Segments" window	XLS/X, HTML, RTF, clipboard
Coded segments for a single document (teamwork)	Right-click on the document and select Export teamwork	.MEX (internal format)
Memos	Export in the Overview of memos	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 clipboard with Ctrl+C or cmd+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, RTF
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 or cmd+C to copy them to the clipboard	TXT (tab-delimited), HTML, XLS/X or clipboard
Code frequencies	Codes > Overview of codes then export symbol	TXT (tab-delimited), HTML, XLS/X

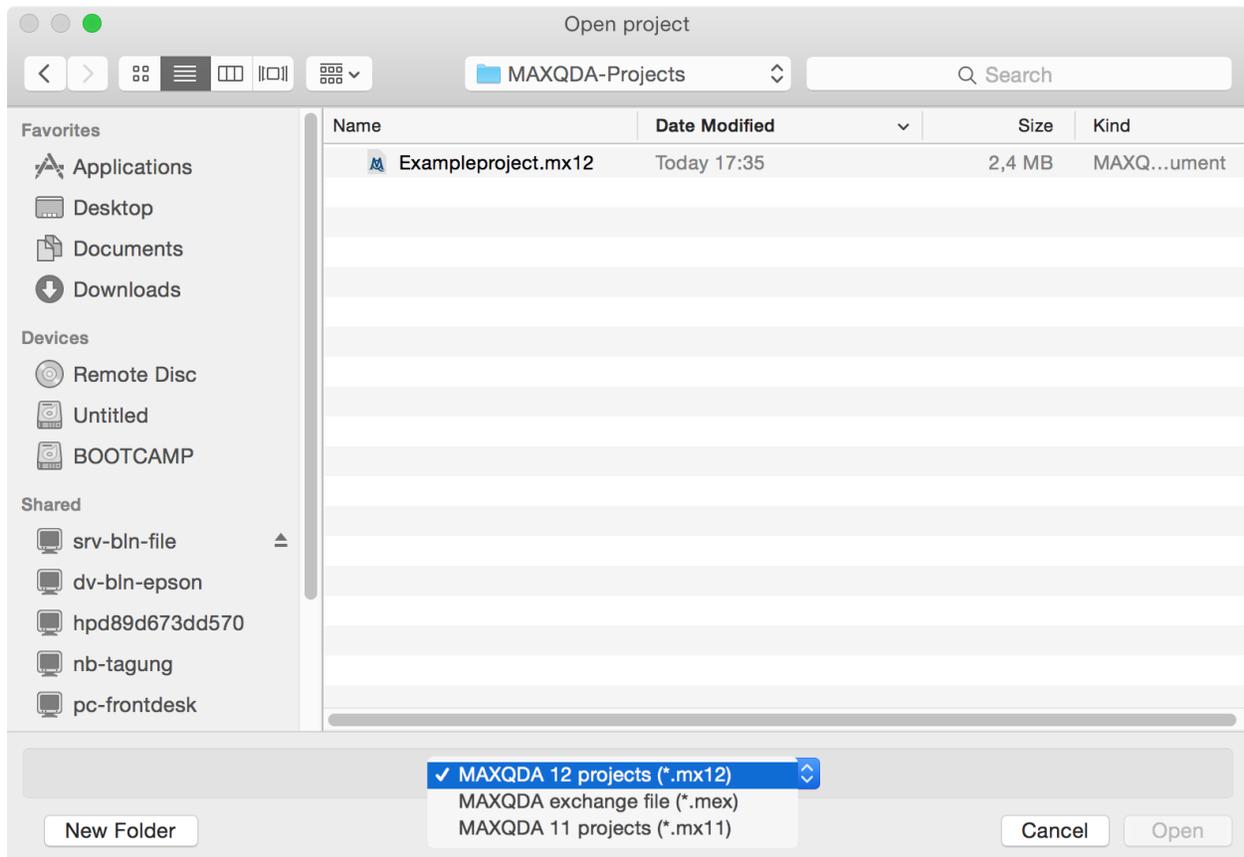
29.2 Print Preview

You can start a print process from within lots of functions and windows in MAXQDA. A preview window will appear that allows to set borders, headers and footers etc.

For some functions – e.g. when printing the document displayed in the „Document Browser“ window“ – some additional settings are offered in the left window pane.

29.3 Opening Projects from Earlier Versions (MAXQDA 11 or older)

To open a project that was created in an earlier version of MAXQDA, launch MAXQDA and select **Open project**. A dialog window will appear, from which you can select the file type which corresponds to your project.



Open projects from previous versions in MAXQDA 12

MAXQDA 12 for Windows can read the following project formats:

- MAXQDA 12 (Ending: MX12)
- MAXQDA 11 for Windows (MX5)
- MAXQDA 10 (MX4)
- MAXQDA 2007 (MX3)
- MAXQDA 2 (MX2)
- MAXQDA (M2K)
- MAXQDA Exchange files (MEX), that were created with MAXQDA for Mac versions 11.2.2 or newer.
- MAXQDA Exchange files (MEX), that were created with MAXQDA for Windows

MAXQDA 12 for Mac can read the following file formats:

- MAXQDA 12 (Ending: MX12)
- MAXQDA 11 for Mac (MX11)
- MAXQDA Exchange Files (MEX), that were created with MAXQDA for Mac version 11.2.2 or newer.



- MAXQDA Exchange Files (MEX), that were created with MAXQDA for Windows version 11.1.0 or newer.

Note: MAXQDA 12 will install a copy of the project in the new MX12 format in the folder where the project is located. Please note that the conversion process may take several minutes to complete. The progress of the conversion process will be displayed on your screen at all times.

29.4 Opening MAXQDA Projects in MAXQDA 11

MAXQDA 11 for Windows (as of version 11.1.1) and MAXQDA for Mac (as of version 11.2.3) can open MAXQDA 12 projects using the MAXQDA exchange file format. To open a MAXQDA 12 project in MAXQDA 11, proceed as follows:

1. Open the project in MAXQDA 12.
2. Select **Project > Export MAXQDA exchange file**. If the project accesses files that are stored in the remote data folder, MAXQDA will ask if these files should be bundled in a compressed ZIP file. If you select Yes, and have saved a large amount of data externally – such as large video files – this process may take a long time to complete.
3. Open MAXQDA 11 and select **Open existing project** and click **OK**.
4. **Select MAXQDA Exchange file as the file type**, navigate to the saved file and click **Open**. MAXQDA will search in the folder where the exchange file was saved for the compressed ZIP file, and automatically decompress the file in the remote data folder.

Note: MAXQDA 11 creates a new MAXQDA 11 project in MX11 format in the folder where the selected file is located. Please note that the conversion process can take several minutes to complete. MAXQDA will constantly display the progress of the conversion for your information.

Should MAXQDA 11 already open with a project, you can choose to open it directly through the main menu **Project > Open MAXQDA Exchange File**.

The following modifications will be made when the project is converted:

- Overlapping codes from PDF files will be split into multiple codes.
- Focus group documents and codes will become “normal” text documents and codes.
- The default color for codes will change from grey to green.
- Tables in text documents are counted as paragraphs in MAXQDA 12 and MAXQDA 11. In MAXQDA 11 for Windows paragraphs are also counted within a table. Therefore, please note when you open a project in MAXQDA 11 for Windows, the source data for coded segments in text documents that contain a table may change.

29.5 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 emoticones, and geographical references where it applies.

Export project from MAXApp

Open the project you want to export in MAXApp.

Android

Export the project via Dropbox or via the internal memory of the device. For the last option you need to connect your device with a USB cable to your computer.

iOS

Export the project via Dropbox or via iTunes. For iTunes export you need to connect your device with your computer first.

Import Project into MAXQDA 12



MAXApp project import icon

In the main toolbar, click on the **Import MAXApp Project** button and a file dialog will appear. Navigate to the folder that is labeled identical as the MAXApp project. (If you have exported to Dropbox a folder labelled "MAXApp ..." has been created on the top level of your Dropbox. If you have exported to device a folder labelled "MAXApp ..." has been created on the internal storage of your device.)

Open the ZIP or XML file inside the folder that is labeled with the project name and choose **Open**.

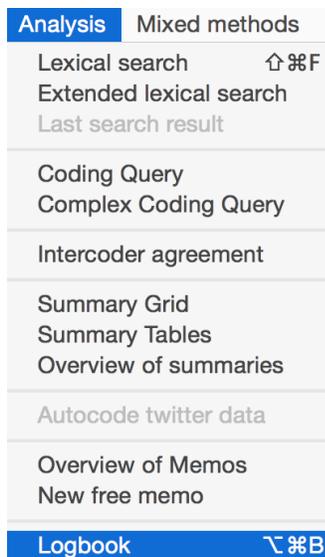
The documents will be imported into your project and placed in a new document group that is named exactly like your MAXApp project.

30 Special Features and General Options

30.1 The Logbook

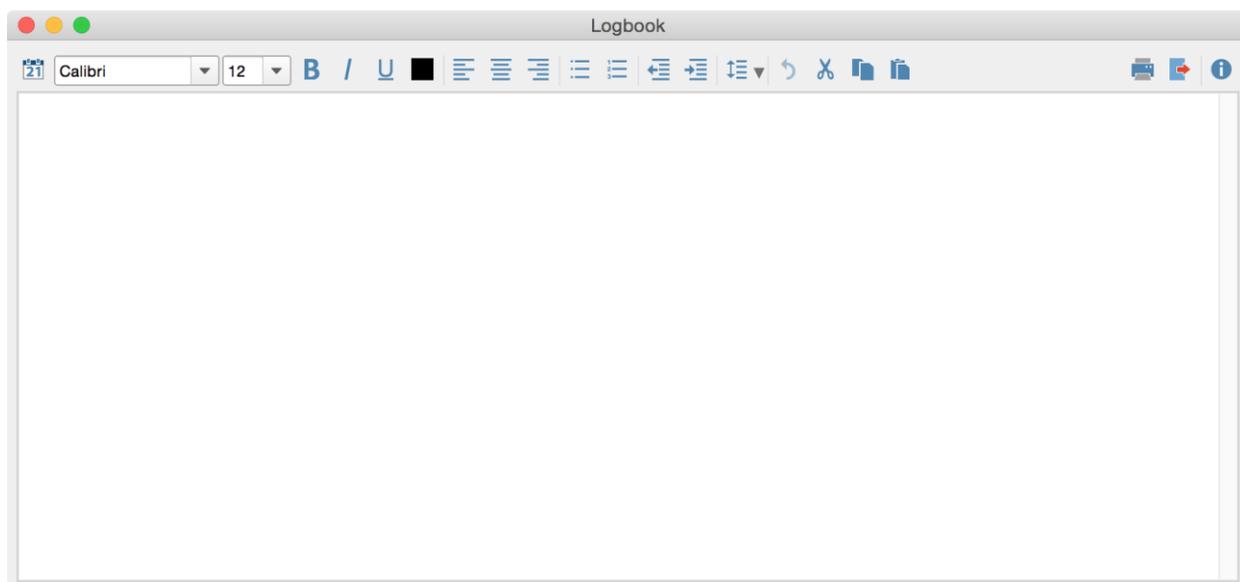
The logbook is a feature in MAXQDA that lets you write a sort of journal to keep track of your analysis work. The term “logbook” is usually used in connection with ocean navigation, which was used to record meaningful happenings and observations, and it can be used in a similar way for your project. The logbook is set up to have the newest entries at the top.

You can open the Logbook from the main menu Analysis > Logbook or with the keyboard shortcut Ctrl+Alt+B (Windows) or cmd+alt+B (Mac).



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.

30.2 Checking for Updates

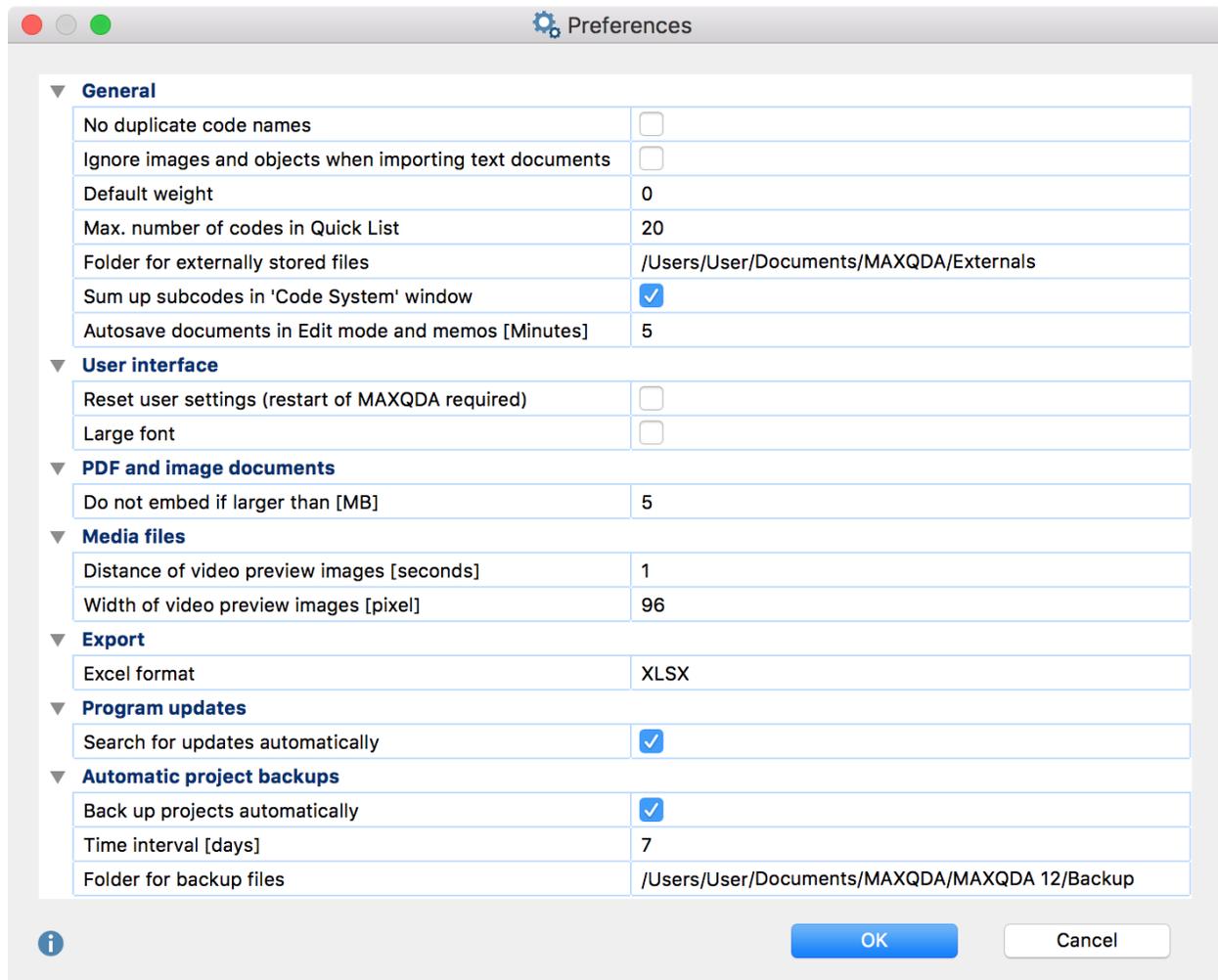
Each time you start the program, MAXQDA will check the MAXQDA website to see if an updated version is available. If an update is available, it is recommended that you download it in order to benefit from interesting new features and enhancements.

Under **Project > Preferences** (Windows) or **MAXQDA 12 > Preferences** (Mac), you have the options to **Search for updates automatically**.

If you have opted to skip an update, you can later request it manually by searching for the item in the Help menu.

30.3 General Preferences

In **Project > Preferences** (Windows) or **MAXQDA 12 > Preferences** (Mac) you can find the general program settings. The window that appears lets you view and edit your options. Some changes that you make might require a restart of MAXQDA.



Preferences window

The following settings can be changed:

“General” settings

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 on the same hierarchy level.

Ignore images and objects when importing text documents

Graphics, especially photos, can be very large and take up a lot of memory. Furthermore, there will be situations in research where you are only interested in the pure text, not in the images. In this case you can select this option and MAXQDA will ignore images when importing a text.

Default weight

The default weight score for newly-created coded segments is 0, 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.

Folder for externally stored files

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.

Autosave documents in Edit mode and memos

Here you can specify the amount of time after which the project is saved automatically during editing of documents and memos.

“User interface” settings

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.

Large font (only for Mac, 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.

“PDF and image documents” settings

Do not embed if larger than [MB]

This value determines the size at which an imported PDF or image file will be saved not in the MAXQDA project file, but instead in the folder for externally stored files, with only a reference to the document created in the project. The default size is 5 MB. If necessary, you can adjust this value to be higher or lower.

“Media files” settings

Distance of video preview images (seconds)

Here you can define the interval at which MAXQDA generates thumbnails for video files. The shorter the interval, the more images are generated.



Width of video preview images (pixel)

This setting allows you to control the width of the thumbnails for video files.

“Export” settings

Excel Format

You can set here whether you want to export Excel files in XLS or XLSX format.

“Program updates” 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.

“Automatic project backups” settings

If this option is selected, every time you open a project, MAXQDA checks when it was last saved by MAXQDA and creates a backup in the backup folder after the specified Time interval (days). After the set time interval [days] to demand the backup folder a backup of the project.

31 Keyboard Shortcuts

The following keyboard shortcuts are available in MAXQDA.

General

Windows	Mac	
F1	cmd + shift + ?	Opens the MAXQDA help system.
Ctrl + N	cmd + N	Creates a new project.
Ctrl + O	cmd + O	Opens an existing project.
Ctrl + A	cmd + A	Highlights the entire text.
Ctrl + C	cmd + C	Copies the selected segment to the Windows clipboard.
Ctrl + X	cmd + X	Cuts out the selected segment and puts it in the Windows clipboard.
Ctrl + V	cmd + V	Pastes the selection from the Windows clipboard.
Ctrl + Alt + B	cmd + alt + B	Opens the logbook.
Ctrl + Alt + M	cmd + alt + M	Opens the Code Matrix Browser.
Ctrl + Alt + R	cmd + alt + R	Opens the Code Relations Browser.
Ctrl + F	cmd + F	Opens the search toolbar for the current window or the table overview.
Ctrl + Shift + F	cmd + Shift + F	Opens the lexical search.
Ctrl + P	cmd + P	Prints the focused window or view.
Alt + Double-click	alt + double-click	Inserts a MAXQDA object (e.g. a document or code) into MAXMaps, if MAXMaps is open.

„Document System“

Windows	Mac	
Double-click	Double-click	Opens a document.
Shift + double-click	Shift + double-click	Opens a document in a new tab.
Ctrl + click	cmd + click	Activates or deactivates a document.
F2	Enter	Renames a document.
Del	cmd + Backspace	Deletes a document.
Alt + UpArrow Alt + DownArrow	alt + UpArrow alt + DownArrow	Moves a document or document group up and down in the “Document System”.



Strg + Drag & Drop	alt + Drag & Drop	Creates a copy of the document without coded segments (start dragging and then hold Strg/cmd)
Ctrl + T	cmd + T	Creates a new document and opens it for editing in the "Document Browser".
Ctrl + D	cmd + D	Opens the dialog window for importing documents.
Alt + Shift + M	alt + Shift + M	Creates a new memo or opens an existing memo for a document.

„Code System“

Windows	Mac	
Ctrl + click	cmd + click	Activates or deactivates a code including the subcodes.
Shift + click	Shift + click	Activates or deactivates a code without subcodes.
F2	Enter	Renames a code.
Entf	cmd + Backspace	Deletes a code.
Alt + UpArrow, DownArrow	alt + UpArrow, DownArrow	Moves a code (possibly with subcodes) up and down in the "Code System".
Alt + RightArrow, LeftArrow	alt + RightArrow, LeftArrow	Increases and decreases the level of hierarchy of a code.
Alt + Drag & Drop	alt + Drag & Drop	Creates a copy of the code without coded segments.
Alt + N	cmd + alt + N	Inserts a new code on the chosen level.

„Document Browser“

Windows	Mac	
Ctrl + E	cmd + alt + E	Starts and stops Edit Mode.
Alt + L	cmd + alt + L	Codes the selected segment with the most recently used code.
Alt + W	cmd + alt + W	Opens the dialog window for creating a new code, which will be used to code the selected segment.
Alt + C	cmd + alt + C	Codes the selected segment with the code shown in the Quick List.
Alt + I	cmd + alt + I	Codes the selected segment with a newly-created code named after the first 63 characters of the selected segment (in-vivo-coding).
Strg + L	cmd + 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	PgUp, PgDn	Moves to the next/previous page of a PDF document.
Pos1, End	Pos1, End	Moves to the beginning or the end of a text document.
Strg + Plus, Strg + Minus	cmd + Plus, cmd + Minus	Zooms in or out of the document.
Strg + Zero	cmd + Zero	Zooms the view to 100 %.
Alt + Tab, Alt + Shift + Tab	alt + Tab, alt + Shift + Tab	Jumps to the next/previous tab.
Strg + F4	cmd + w	Closes the current tab or the current view.

„Media player“ toolbar [not available in MAXQDA Base]

Windows	Mac	
Strg + Alt + P	cmd + alt + P	Activates/deactivates the media player.
Shift + F3	Shift + F3	Jumps to the previous time stamp.
F3	F3	Jumps to the next time stamp.
F4 or F5	F4 or F5	Plays or pauses the media file.
F6	F6	Inserts a time stamp.

„Multimedia browser“ [not available in MAXQDA Base]

Windows	Mac	
F7	F7	Sets a clip start.
F8	F8	Sets a clip end.
F9	F9	Plays a clip.
F10	F10	Cancels the clip mark.

Table overviews, e.g. „Overview of coded segments“

Windows	Mac	
Ctrl + Shift + E	cmd + Shift + E	Opens the table as Excel file in the standard program.
Ctrl + Shift + H	cmd + Shift + H	Opens the table as HTML file in the standard internet browser.
Ctrl + E	cmd + E	Opens the dialog window for exporting the table or view.
Del	cmd + Backspace	Deletes the chosen row/s.

MAXDictio Dictionary [only available in MAXQDA Plus and MAXQDA Analytics Pro]

Windows	Mac	
Ctrl + Shift + N	cmd + Shift + N	Creates a new category.



Ctrl + Alt + N	cmd + alt + N	Creates a new search item.
Ctrl + E	cmd + E	Opens the dialog window for exporting a dictionary.
Del	cmd + Backspace	Deletes the chosen category.

MAXDictio Stop list [only available in MAXQDA Plus and MAXQDA Analytics Pro]

Windows	Mac	
Ctrl + N	cmd + N	Creates a new word to be excluded.
Ctrl + E	cmd + E	Opens the dialog window for exporting the stop list.
Del	cmd + Backspace	Deletes the focused items.

32 Troubleshooting

If the results of a Coding Query don't match your expectations, the first thing you should always do is reset the retrieval functions by clicking **Reset Coding Query** in the "MAXQDA standard" toolbar.



Icon for resetting the Coding Query

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 > Preferences (Windows) or MAXQDA 12 > Preferences (Mac)** 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
In Windows, 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.

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.
Or: Right-click on the coding stripe and choose Delete.

Tip: If you aren't able to solve your problem, don't hesitate to contact our [online support](#).

33 Technical Data and Information

33.1 Limitations and technical information

MAXQDA sets very few limits. The following table informs about importable file formats and some limits within MAXQDA.

Text length:	No set limit, but it isn't recommended that you import texts larger than 1 MB
Importable Text formats:	RTF, DOC/X, ODT, PDF, TXT, HTML
Importable Image formats:	JPG, GIF, TIF, PNG
Importable Table formats:	XLS/S
Supported Audio formats:	Windows: MP3, WAV, WMA, AAC, M4A Mac: MP3, WAV, AAC, CAF, M4A
Supported Video formats:	MP4, MOV, MPG, AVI, M4V, 3GP, 3GGP Windows: WMV recommended Codec: H.264/AVC
Number of projects:	No limit
Number of document groups:	No set limit
Number of documents:	99,999, but check performance before working with several thousand documents
Number of codes:	No set limit, but check performance before working with several thousand codes
Number of coded segments	No set limit, but check performance before working with several thousand segments and please note that above 200,000 coded segments the stability of MAXQDA cannot be guaranteed (if your computer has less than 4 GB RAM this threshold may be lower)
Code System levels	Max. 10
Numerical data:	10 characters
Number of variables	No set limit, but more than 250 is not recommended

33.2 File Management

MAXQDA works with the following file types:

.MX12	MAXQDA 12 project file for Windows and Mac
.MX11	MAXQDA 11 project file for Mac
.MX5	MAXQDA 11 project file for Windows
.MX4	MAXQDA 10 project file
.MX3	MAXQDA 2007 project file
.MX2	MAXQDA 2 project file
.M2K	MAXQDA 1 project file
.LOA	Saved formula files (activation by variables)
.SEA	Saved search files (<u>SE</u> Arch file)
.TXT	Exported table file
.RTF	Exported texts, coded segments, and memos
.MTR	Exported "Code System"
.MEX	MAXQDA Exchange file (<u>MAX</u> <u>EX</u> change)

33.3 System Requirements

- **Operating System:** Microsoft Windows from version 7, or Mac OS X from version 10.8
- **Processor:** 1,3 GHz with 2 cores, recommended: 2 GHz or more with 2 cores or more
- **RAM:** 2 GB RAM, recommended: 4 GB or more
- **Monitor:** 1.024 x 768, recommended: 1.280 x 768 or more

Note: If you are working with challenging projects and/or large media files adequate computer hardware is recommended.

To use the following features with Windows, Microsoft Word 2003 or later and .NET 3.5 or newer must be installed on the computer:

- Import of DOC/X or ODT files
- Smart Publisher export
- Import of web pages from MAXQDA Web Collector