

## QDA Miner and Chapter 5

In Chapter 5 to help get you started, we talk about productive things you can do in the early stages of setting up a 'project' in software. Experimenting with these processes where relevant in your chosen software will help to become familiar with useful entities. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections included in the chapter:

Creating the software project

Transparency

Getting organized

Importing data

Cross referencing

Literature management

A framework of memos

Included below are starting points to create projects (see previous introductory page to Dedoose)

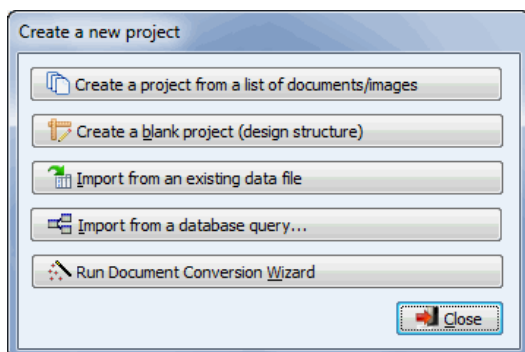
- Create an empty project and later import data
- Start a project off by selecting a list of files,
- Start a project from a spreadsheet of mixed quantitative and qualitative data.
- You can create a project from and RIS file exported from a bibliographic database

For any of them you can then proceed to do various things. We include in these sections for instance a section for creating codes as a way of experimenting with your new project.

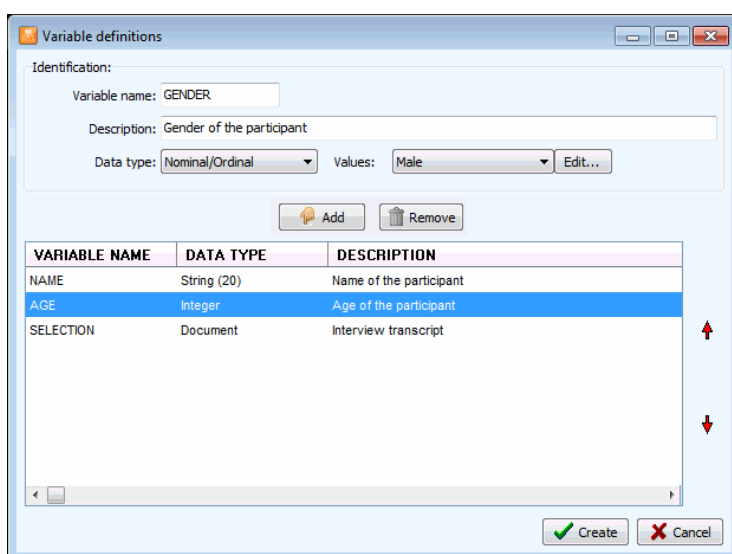
### How to create an empty project

Although the easiest method to create a project is by importing documents, sometimes one may need to create an empty project where documents and image would later be stored. To create an empty project, you first need to define the initial structure of the project. This structure is defined by the list of variables that each case will contain. A variable be a document or an image to be manually coded, but can also consist of a numeric value, a date, a Boolean value (true or false), a date, a categorical variables, etc. A single project can contain up to 2035 variables per case. It is possible to create several document and image variables for each case. The ability to store many documents per case is especially useful when a specific unit of analysis (an individual, a group, or the project involves a set of several document types or in cases where individuals are being interviewed at different points in time. A document variable may also be created to store notes or comments that are specific to a case. QDA Miner can later be instructed to search and analyze specific document or image variables or in all documents.

To create a new empty project file, select the NEW command from the PROJECT menu. This command calls up a dialog box similar to the one below:



Select the **Create a blank project** button. The **Variable Definitions** dialog box will appear.



In the Variable Definitions dialog box (see above), you can define various attributes for these new variables, such as their name and whether they will contain numeric, alphanumeric values, or dates.

**VARIABLE NAME** – The first edit box at the top of the dialog box allows you to enter a variable name. Each variable name must be unique (within that project file). Valid variable names begin with a letter and may contain letters, numbers or underscore characters. Punctuation marks, blank spaces, accentuated and other special characters are not permitted. The maximum variable name length is ten characters.

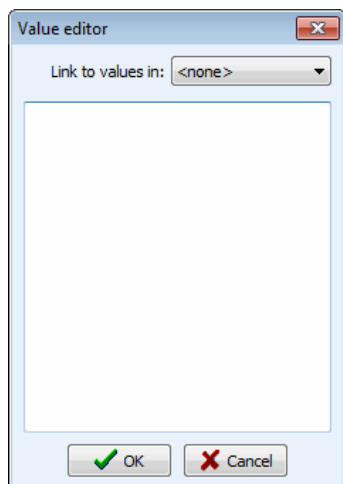
**DESCRIPTION** – The Description option is used to enter a variable label that describes in more detail the content of the variable. You may leave this column blank if you wish since it is always possible to add or edit a description later using the VARIABLES | PROPERTIES command.

**DATA TYPE** – Each variable in the data file must have a type. QDA Miner supports the following types:

- **Document** – This data type is used to store documents that will be manually coded. QDA Miner stores text in this data type using Rich Text Format (RTF). This format enables the use of different fonts and styles and paragraph formatting. Graphics and tables may also be inserted in the document. Numerous file formats may be directly imported into document variables, such as plain ASCII files (\*.TXT), Rich Text files (\*.RTF), MS Word documents (\*.DOC), Acrobat files (\*.PDF), HTML (\*.HTM or \*.HTML) and WordPerfect documents (\*.WPD)

- **Image** – This data type is used to store graphics that will be manually coded. Numerous file formats may be directly imported into document variables, such as Windows bitmaps (\*.BMP), Windows Meta Files (\*.WMF), or Enhanced Meta Files (\*.EMF), Compuserve Graphic Interface (\*.GIF), Portable Network Graphics (\*.PNG) or JPEG files (\*.JPG or \*.JPEG)
- **Numeric** – Numeric variables can contain either integer or floating-point numbers. When you choose floating point numbers, you will be asked to specify the number of decimal places to display. Floating-point numbers are stored in the data file using double precision values (at least 15 significant digits). The option is used exclusively to control how numeric values are displayed in the Variables grid and in other locations and does not affect the internal precision of the variable
- **Nominal/Ordinal** – Nominal or ordinal variables are used to hold a limited number of short strings used to describe specific properties of a case. For example, you may choose to use this variable type to identify the gender of the interviewee ("male" or "female") or its group membership ("manager", "employee", "client", etc.). You may also use this data type to hold ordinal ranking ("novice", "intermediate", or "expert") or responses to close-ended questions such as Likert scale items (e.g.: from "strongly disagree" to "strongly agree"). You should use this data type instead of short strings if you plan to analyse this variable or examine the relationship between its values and any other variable or coding of documents

When a nominal/ordinal data type is selected, you will be asked to first provide a list of values that this variable can take. To enter new values, click the EDIT button. A dialog box similar to the one below will appear:



You can start typing values (one value per line) in the large edit box. If the current variable uses the same values as another existing variable, you may also establish a link to this other variable so that they will share the same list of values. Click OK to confirm the setting of these values. Note: this list may later be modified to add new values or edit existing ones.

- **Date** – The date type holds a year, month and day. The display and data entry format used for dates is based on the Windows date setting
- **Boolean** – The Boolean type stores a value that can be either true or false (or Yes or No)
- **Short String** – Short string variables can contain up to 254 alphanumeric characters. When creating a short string variable, you must first specify the maximum number of characters this variable will hold

### To create a new variable

- Enter a unique variable name
- Enter a description (optional)
- Select the data type for this variable
- Set the option associated with the chosen data type (see above)
- click the Add button to add the defined variable to the list

### To remove a variable from the list

- Select the row containing the variable you want to remove
- Click the Remove button

### To change the position of a variable in the list:

- Select the row containing the variable you want to move
- Click the up or down arrows located to the right of the grid until the variable appears in the desired location

### To create the data file

- When you have finished defining the structure of the new project, click the **OK** button
- You will be asked to specify the name of the project that you want to create. If a project with an identical name already exists, you will be asked to confirm the overwriting of the older project

## How to create a backup

### To make an archived copy of the current project:

- Select the MAINTENANCE | BACKUP | CREATE command sequence from the PROJECT menu. A **Save File** dialog box will appear
- Set the drive and directory setting to the location in which you want to store the compressed file
- A file name for the backup must be provided. QDA Miner automatically suggests a name consisting of the project name to which has been added the current date. You may change it to another valid file name
- Click **OK**

### To restore a file from an archived copy

- Select the MAINTENANCE | BACKUP | RESTORE command sequence from the PROJECT menu. An **Open File** dialog box will appear, displaying all ZIP files
- Select the proper ZIP file and click the OK button. A second dialog box will appear, prompting you to specify the location in which data should be restored. The default location is the same directory as the archive file
- If needed, change the drive and directory setting and click the OK button to proceed with the extraction

## How to move a project

### Moving a project from Windows Explorer

Up to QDA Miner 4.0, a project consisted of five or six files stored in the same folder, with the same name but with a different file extensions, such as .wpj, .fpt, .sup, .dbf, .vlb, etc. To move or copy a project to a new location from Windows Explorer, one simply has to copy all files to the new location. Since version 4.1, the entire project is now stored in a single file with a .ppj file extension. Moving a project can be achieved by coping this single .ppj file to the new location.

There are several other ways in QDA Miner to move projects or subsets of it to other locations. The sections below describe different approaches.

### Moving a project using the TEAMWORK | DUPLICATE command

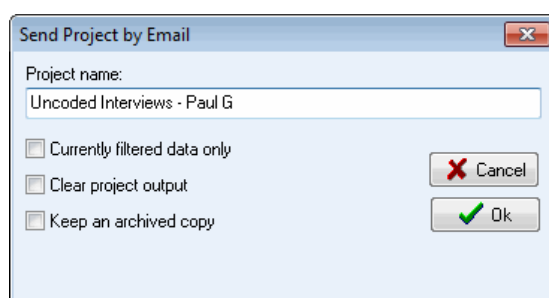
The TEAMWORK | DUPLICATE PROJECT command from the PROJECT menu provides an easy way to store an exact copy of the existing project or a subset of it under a different project name or into a different location. To create a subject of the current project, run the FILTER command from the CASES menu and set the case-filtering conditions of the active project to display the cases that should be stored in the new data file before running the exportation command.

### Moving a project by Email

The SEND BY EMAIL command provides an easy way to electronically send a project to another team member or to any other interested party. If a case filter has been applied, one can choose to send the whole project or only the currently filtered cases. The project may be renamed to prevent any confusion and outputs in the Report Manager may also be cleared. The custom project is then stored in a compressed ZIP file and sent to the user as an email attachment. When executed, your default e-mail program is called allowing you to enter recipient names, add any additional information, or select any other options. If

### To send the project by email

- If needed, filter the cases to display only the data that should be sent
- Select the TEAMWORK | SEND BY EMAIL command from the PROJECT menu. A dialog box similar to the one below will appear:



- If needed, edit the project name
- If a case filter is active, enable the **Currently Filtered Data Only** option if you want to send only those selected cases, or disable it to ignore the filter and to send all cases

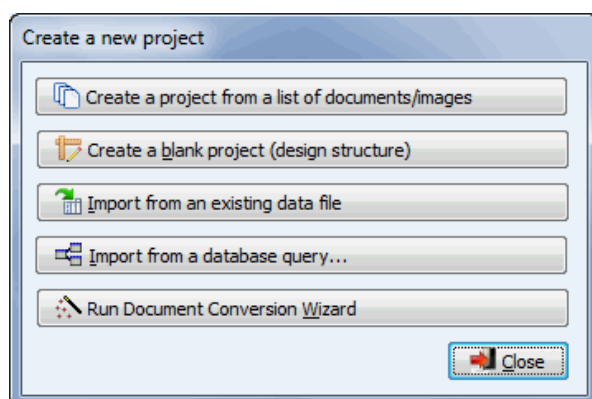
- Set the **Clear Project Output** option if you want to clear the content of the Report Manager of this project
- If you want to keep a zipped copy of the project sent to the user, select the **Keep Archived Copy** option
- Click the **OK** button. If an archived copy was requested, you will be asked to provide a destination for the ZIP file. The default email application is called. Enter one or more recipient names and type any required information

## How to create a project from a list of documents

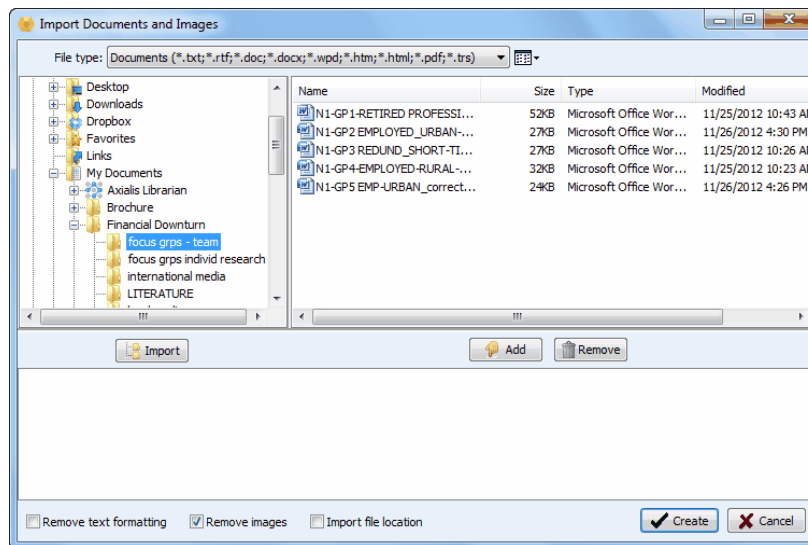
The easiest method to create a new project and start doing analysis in QDA Miner is by specifying a list of existing documents or images and importing them into a new project. Using this method creates a simple project with two or three variables: A categorical variable containing the original name of the files from which the data originated, a DOCUMENT variable containing imported documents and/or an IMAGE variable containing imported graphics. All text and graphic files are stored in different cases so, if 10 files have been imported, the file will have 10 cases with two or three variables each. To split long documents into several ones or to extract numerical, categorical, or textual information from those documents and store them into additional variables, use the **Document Conversion Wizard**.


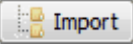
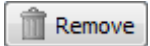
### To create a new project using this method

- Select the NEW command from the PROJECT menu. This command calls up a dialog box similar to the one below



- Click the **Create a project from a list of documents/Image** button. A dialog box similar to the one below will appear:



- Click on a folder in the folders list on the upper left section of the dialog box to display its contents. If you want to see contents stored in another drive, go to the folders list, click **My Computer**, and then double-click on a drive
- In the upper right section of the dialog box, QDA Miner displays all supported document file formats that may be imported, such as MS Word, WordPerfect, RTF, PDF documents, plain text files or HTML, as well as all graphic file format supported (BMP, JPG, GIF, PNG and WMF). To display only files of a specific type, set the **File Type** list box to the desired file format
- Click the file you would like to import. To select multiple files, hold down the **CTRL** key while clicking the other files
- Click the  button below the file list box to add those files to the list of files to import, located at the bottom of this dialog box. You may also drag the files from the top right section to this list
- This dialog box also offers a way to import at once all documents stored in a folder and its subfolders. To import all documents of specific type, first select the main folder containing the documents, then click the  button below it. A dialog box will appear, allowing you to specify which file type to search for and whether to search in subfolders. Once set, click **OK** to proceed. In the provide example, selecting the **Financial Downturn** folder and then using this command will import all 80 documents stored in the Financial Downturn folder and in any of its six subfolders (the Excel spreadsheet won't be imported)
- To remove a file from the list of files to import, select that file name and click the  button

When importing formatted documents like Word, HTML or PDF files, images stored in the document may significantly increase the resulting document size and slow down the browsing and text-processing speed of QDA Miner and WordStat. For this reason, the Remove Images option has been set by default, resulting in smaller documents. To keep the images in the imported documents, simply disable this option.

If the text formatting of the existing documents such as the font styles and colors or the paragraph formatting are not relevant, one can further reduce the size of the imported documents by selecting the Remove Text Formatting option. Enabling this option will convert all documents into plain-text documents without any formatting or images.

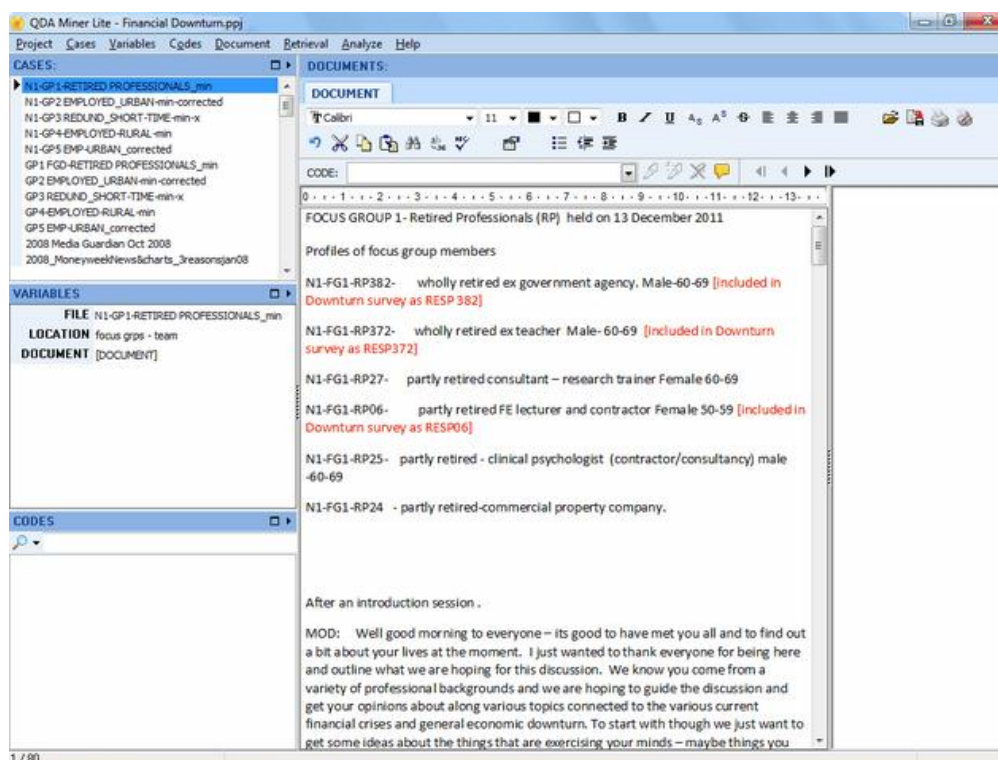
- Setting the **Import File Location** check box may be used stored in the project, along with the document and the file name, the path under which the file can be found. This **LOCATION** variable may then be transformed or recoded into meaningful additional variables. This feature is especially useful when



folders have been used to store separately documents of different types or belonging to different groups or individuals

- Once all files have been selected, click the **CREATE** button. You will be asked to specify the name of the project that you want to create. Type 'Financial Downturn'. If a project with an identical name already exists, you will be asked to confirm that you wish to overwrite the previous version of the project

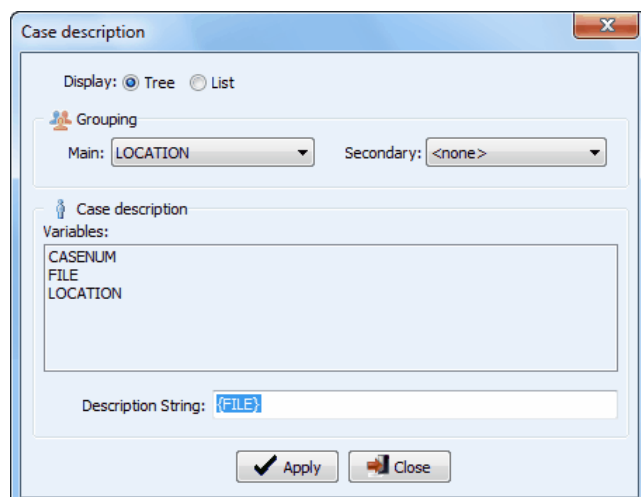
QDA Miner closes this dialog box, imports all the specified files into a new project and then brings you back to the main window. This window should look like the one below:



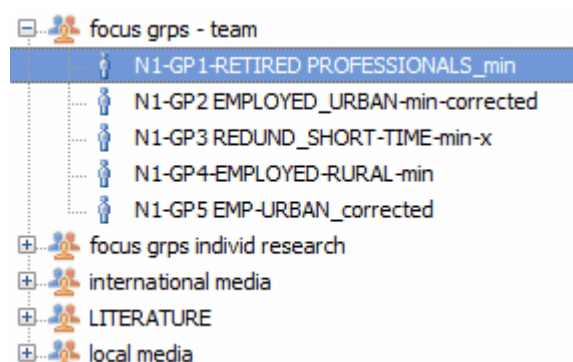
If you imported all documents from all folders as instructed above, we suggest grouping cases by the folder location. To achieve this, follow the following instructions:

- Select the **GROUPING / DESCRIPTOR** command from the **CASES** menu. A dialog similar to this one will appear:






- Set the **Display** option to **Tree**, and choose as the **main** grouping variable **LOCATION**
- Click the Apply button. The content of the **Cases** window should now look this way, allowing you to easily browse through different sources of documents:



## How to import documents in an existing project

The Document window allows users to enter text directly in the document editor or paste text from the clipboard. It is also used to import an existing document stored on disk into the project.



### To import a document into an existing case

- From the **Cases** window, select the case in which you would like to store the document
- If your project contains more than one document variable per case, make sure the Document window points to the proper document by selecting its tab on top of this window
- Select the DOCUMENT FILE | IMPORT command from the DOCUMENT menu or click the  button on the document editor toolbar. An **Open File** dialog box will appear
- Select the file format of the document that you want to import from the **Files of Type** list box located at the bottom of this dialog box

- Highlight the file name that you want to import and click OPEN

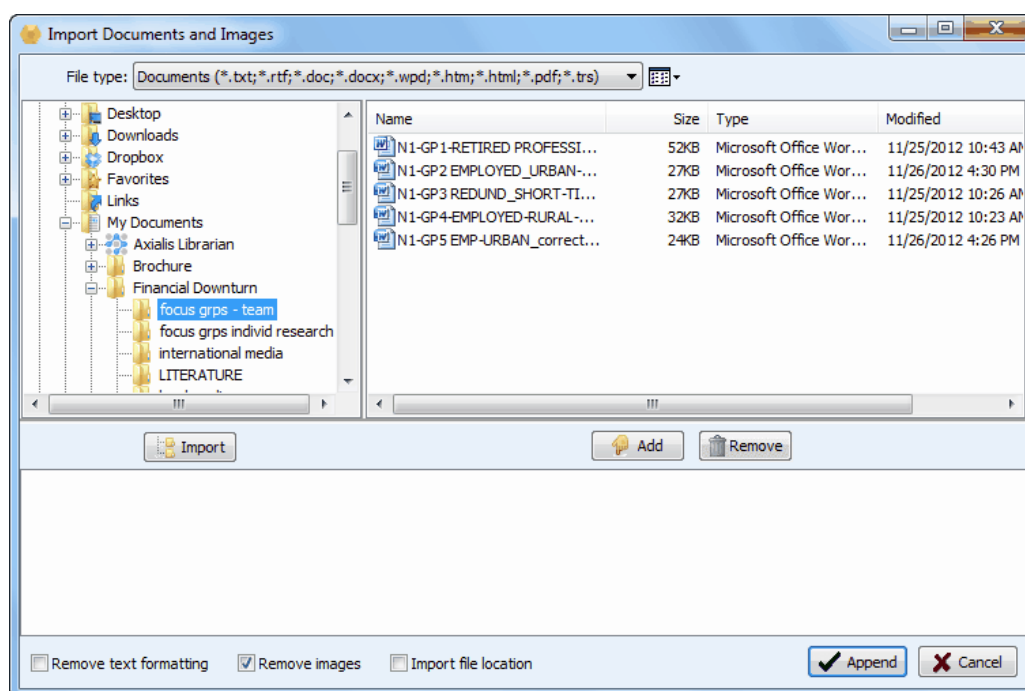
Please note that importing a document will overwrite existing text stored in the currently selected document. To append a file to an existing text, simply select this text, copy it to the clipboard, import the new document, and paste the text back in the proper location.

## To import a document into a new case


- Select the ADD command from the CASES drop-down menu. A data entry dialog box will appear
- Double-click the document variable or select the document variable and press F2 to access the text editor
- Select the OPEN command from the FILE menu or click the  button on the editor toolbar. An Open File dialog box will appear
- Select the file format of the document that you want to import from the **Files of Type** list box located at the bottom of this dialog box
- Highlight the file name that you want to import and click OPEN
- Exit the editor by selecting the CLOSE command from the file window or clicking the  button
- After entering data for other variables, click the OK button

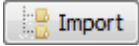
## To import several documents into new cases

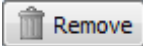
To append documents or images and store them in new cases, select the APPEND DOCUMENTS/IMAGES command from the CASES menu. A dialog box similar to the one below will appear:

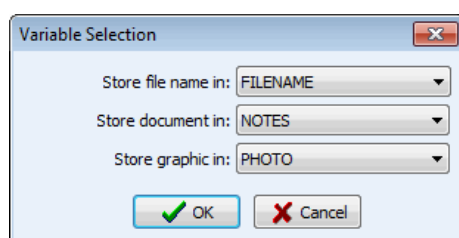


- Click on a folder in the folders list on the upper left section of the dialog box to display its contents. If you want to see the contents of a drive, go to the folders list, click **My Computer**, and then double-click on a drive
- In the upper right section of the dialog box, QDA Miner displays all supported document or graphic file formats that may be imported. To display only documents or images of a specific type, set the **File Type** list box to the desired file format
- Click the file you would like to import. To select multiple files, hold down the **CTRL** key while clicking the other files

- Click the  **Add** button to add those files to the list of files to import, located at the bottom of this dialog box. You may also drag the files from the top right section to this list

- This dialog box also offers a way to import at once all documents stored in a folder and its subfolders. To import all documents of specific type, first select the main folder containing the documents, then click the  **Import** button below it. A dialog box will appear, allowing you to specify which file type to search for and whether to search in subfolders. Once set, click **OK** to proceed

- To remove a file from the list of files to import, select that file name and click the  **Remove** button
- Once all files have been selected, click the **Append** button. If the project contains more than one categorical, document or image variable, a dialog box similar to this one will appear:



- Select the categorical variable in which the file name will be stored. Set this list box to **<none>** to prevent the program from storing this information in the project
- Select the document variable where the imported documents should be stored
- If the option to import the document location was checked, you will also need to specify the categorical variable where this location should be stored
- Select the image variable where the imported graphic should be stored
- Click the **OK** button

## Create a project from a bibliographic database

If it relevant to you see sections contained in Chapter 10 pages see also how to create a project from an RIS file exported from a bibliographic software manager (EndNote, RefWorks, Mendeley etc)

## Organizing the data to known characteristics

Depending on how you created your project, you may already have created some variables – for example a *Document* variable will hold the textual files, an *Image* variable will hold the graphic files. You can choose to create further variables to organise the data at any stage.

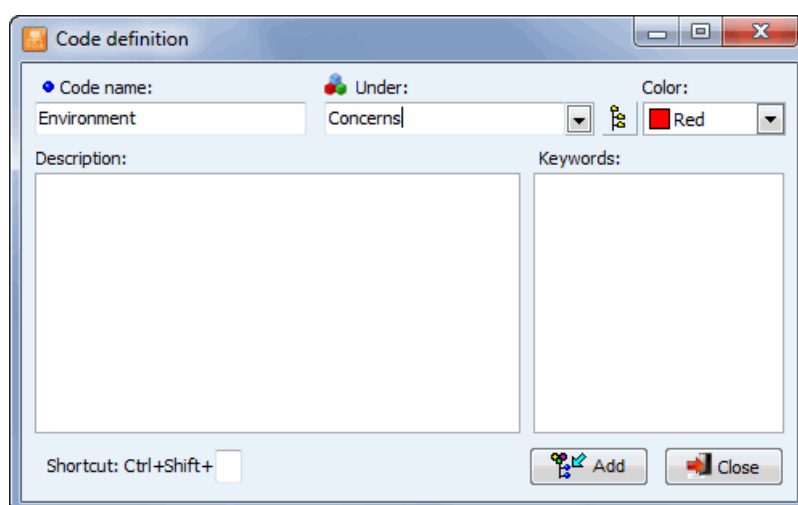
## How to create codes, categories, subcategories

What might codes be used for now?

The creation of codes could be useful early on:

- to experiment with the structures in the software
- to create a very crude but useful system of marking passages of data for relevance or significance
- you might indeed have a carefully thought out coding frame you wish to build in the software


To add a new code to the existing or an empty codebook, select the ADD command from the CODES menu. The following dialog box will appear:



When you create a new code, you must (i) specify a unique name and (ii) select a category.

The **UNDER** list box allows you to select the category under which this code will be stored. This control can be used both as an edit box to create a new category and as a list box from which you can select an existing category.

If you want to add the new code to an existing category, select the category name from the list of available categories by clicking the down arrow key to the right of the list box and by selecting the category name.

To add the new code under a new category, simply enter the name of the new category. By default, the new category is listed at the top level of the codebook. To create a subcategory underneath another one, type its full path separating each level by a backslash. For example, typing `Topics\Economy` will create a subcategory Economy under the Topics main category. If this top-level category does not exist, the program will create both this category and its subcategory and then add the specified code into this subcategory. To store a new subcategory into an existing path, one may also type this new category name and then click the  button, which will display the tree view of the codebook categories. From that, select the parent category under which this new category will be stored. Selecting any existing category from this tree view automatically inserts the full path before the new category name in the edit box.

The maximum number of levels a codebook can contain is set to 4 by default for every new project. Since the last level can only contain codes, the actual maximum level of a subcategory is equal to this maximum minus 1. To increase or decrease the maximum number of levels allowed in a project codebook, run the **PROPERTIES** command from the **PROJECT** menu, and set the **Maximum Levels in the Codebook** option to a number between 2 and 9.

When a code is assigned to a text segment, a bracket appears in the MARGIN of the document to indicate the beginning and end of the code along with the code name. The **COLOR** option can be used to select the color of this bracket and of its associated label.

The **DESCRIPTION** option allows you to enter a definition or a detailed description of the code. You can use this section to specify coding instructions for the coders, along with examples or non-examples, and related codes that may be used in place of or in conjunction with this code.

See further work on Codes and coding retrieval.

If you want to remain at data level to explore the content go to Chapter 6 Exercises where tools like the 'query by example' allow very fast exploration of text with similar content (pattern matching tools). See Chapter 6 exercises.

Normand Peladeau 2014

## QDA Miner and Chapter 6

Chapter 6 in the book is all about working at data-level. Being immersed in the data for most researchers is part of familiarising with and analysing the data. You may need this before coding or to enrich and substantiate the coding process (chaps 7 – 9). Remaining close to the data will be more important for some researchers, but for all, the functions covered may be key analytic processes to many different approaches to qualitative data analysis. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections included in the chapter:

- Annotating
- Marking data
- Data reduction
- Text searching
- Word frequencies
- Text mining
- Hyperlinking between points in the data

### How to attach comments to the whole project or parts of it

QDA Miner offers several memo tools.

- Some text may be attached to the entire project by pressing the F4 key
- One can also attach comments to specific cases by creating additional document variables
- One can also attach comments to various outputs stored in the Report Manager
- Log entries in the command log window. This section focuses on how to attach comments to coded segments
- Attach comments to code segments

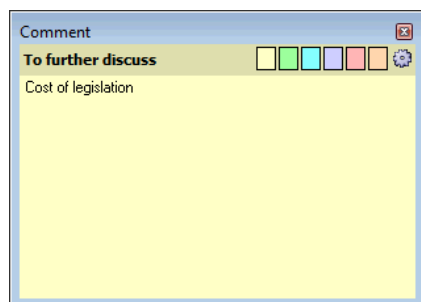
### To attach a comment to a coded segment

SUGGESTIONS ABOUT CODES AS A WAY TO KEEP YOU AT DATA LEVEL


- Think how the coding process can be used as a way to just ‘mark’ data for later retrieval
- It can be used as a way to mark relevance or to enable you to focus on reducing data which has significance for limited number of broad indicators (or themes) e.g. “relevant”, “not relevant” “highly significant”
- Further *commenting* at those places in the data helps to enrich your understanding and recall of what is important in particular segments of the data

**REMINDER: The code creation process is discussed in the previous section. To assign a code to text simply select the relevant text passage and double click on the required code.**

- Select the coded segment to which you want to attach a comment by clicking its code mark
- Click a second time to display the shortcut menu
- Select the COMMENT command. A small window like the one below will appear:



- Enter the text that you want to associate with the selected coded segment
- Click the **X** button (in the upper-right corner) to save the comment and to close the window

You can choose among six types of comments by clicking one of the color rectangles in the upper-right corner of the dialog box (each color corresponds to a different comment type). The labels associated with those comment types appear in the upper-left corner of this window and may be customized by clicking the  button.

When a note has been assigned to a coded segment, a small square with the corresponding color is displayed in the middle of the code bracket. To edit an existing code, follow the same steps described above. To remove a comment, simply open the Note Editor and delete all text in the editing window.

Comments attached to coded segments can be previewed by hovering the mouse cursor over the code mark.

**TIP: While comments cannot be attached to a document itself or to an image, one may achieve a functionally similar feature by creating a 'Comment' or 'Memo' code used for holding any note or observation one may have.**

## EXPLORING TEXT: by using text search and pattern matching tools

### Useful for finding topics and identifying similarity in text segments

In QDA Miner, there are many ways to interrogate coding and content of the data. There are simple Text retrieval tools, and also pattern matching devices which are useful for identifying similarity in text segments *for very large data corpus* – used here to find repetitious topics and phrases in the news media in Case B, the Financial Downturn project.

- *Text Retrieval* (see Chapter 13 sections)
- Pattern matching *Query by Example* – see below (also discussed again in Chapter 13).
- Phrase Finder (using WordStat add-on)



- Further advanced quantitative analyses of content frequencies, cross tabulations etc., at the push of a button when using the add-on the WordStat module

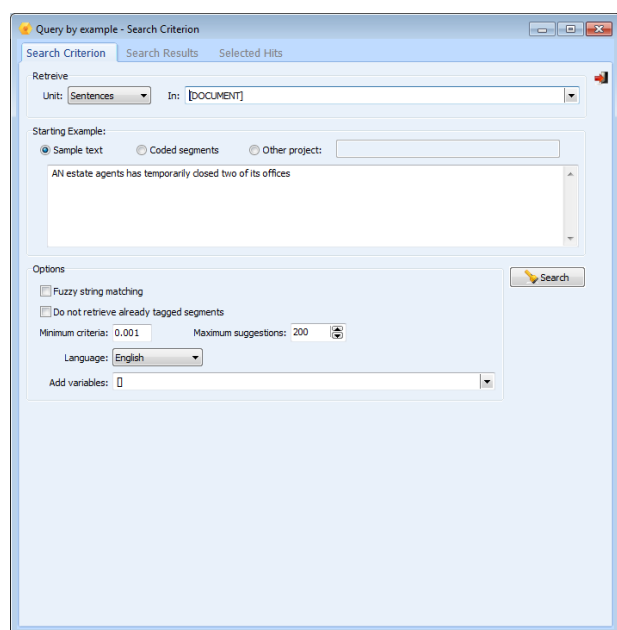
## Explore Text using QDA Miner (WordStat add-on software not required)

### How to ‘Query by Example’ (pattern matching)

One of the advanced content analysis features which relies only on QDA Miner is the Query by Example tool

This is illustrated below. It uses pattern matching to allow the user to select a key passage – sentence, paragraph or just phrase and by using the Query by Example tool discover similar passages in the rest of the data.

Select a short passage of data (as here... *“estate agents temporarily closed two offices”*) from Retrieval menu – select Query by Example – see dialogue box below.



Along the top line (above) usually you would choose the Sentence or Paragraph **Unit** of text to retrieve – and opt to search ‘In’ the ‘Document’ (type of data or variable)

You can experiment with other options in the dialogue box but you are now in a position to hit the **Search** icon in the dialogue box.

See below the list of ‘**Suggestions**’ which results... and in the vertical column to the left you can select the examples that fit – with one click or by a second click – reject them.

If you then Choose the ‘Selected Hits’ button you can add a code to the results if required:

The screenshot displays the 'Query by example' interface. On the left, a document titled 'THIS IS LANCASHIRE' is open, showing a news article about estate agent office closures. The main window shows search results with columns for 'Text' and 'Similarity'. The results list various news snippets related to estate agents closing offices due to market downturns, with similarity scores ranging from 0.009 to 0.355. The interface includes tabs for 'Search Criterion', 'Search Results', and 'Selected Hits', along with a 'Search again' button.

## The Phrase Finder

The Query by Example tool above allows you to dictate an approximate 'topic' that you are interested in. The Phrase Finder on the other hand finds exact repeats of any phrases i.e. not topic specific in order to track down a sense prevalent jargon or ways of expressing things. (This only works when the add-on WordStat add-on module has been purchased)

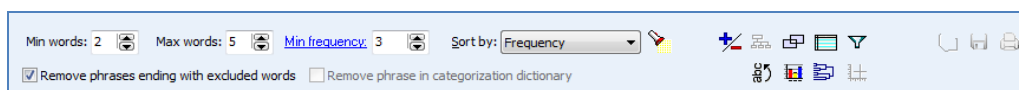
The most common phrases can be automatically extract using the WordStat content analysis module. To extract phrases from all news transcripts, follow those procedures:

- Run the CONTENT ANALYSIS command from the ANALYSIS menu. The following dialog should appear:

The screenshot shows the 'Content Analysis' dialog box. It has a 'Text to analyze:' section with a 'Variables:' dropdown set to '[DOCUMENT]'. Below this are two radio buttons: 'All text' (selected) and 'Coded segments:'. The 'In relation with:' section has three options: 'Nothing - descriptive analysis only' (selected), 'Other variables (nominal, numeric, date, logical)', and 'Assigned codes or category'. There is also a checkbox for 'Include category for remaining text'. At the bottom are 'Ok' and 'Cancel' buttons.


- In the **Text to Analyze** section, select the document variable containing the news transcript and make sure the **All Text** radio button is checked
- Set the In relation with option to Nothing – descriptive analysis only and click OK to starts WordStat

- On the **Dictionaries** page of WordStat, set the **Exclusion** option to **English** and enable it by putting a check mark beside it. Make sure that the **Preprocessing** and the **Substitution** options are disabled
- Move to the Phrase Finder page. At the top of this page, you set the options as showed below:



The screenshot shows the WordStat Phrase Finder interface. It includes input fields for 'Min words: 2', 'Max words: 5', and 'Min frequency: 3'. A 'Sort by:' dropdown menu is set to 'Frequency'. Below these fields are two checkboxes: 'Remove phrases ending with excluded words' (checked) and 'Remove phrase in categorization dictionary' (unchecked). To the right of these fields is a toolbar with various icons for analysis and visualization.

This setting will extract phrases containing from 2 to 5 words appearing at least three times.

- To perform the phrase extraction, click the  button
- Phrases will be listed by default in descending order of frequency
- [optional] Other buttons on the tool bar may be used to perform hierarchical clustering or correspondence analysis on those phrases, identify overlaps, obtain a keyword-in-context of specific phrases or filter phrases on specific words

## LINKING PASSAGES OF DATA: How to create, edit, use and delete links

Hyperlinking allows one to attach to a specific text segment or coded segment a link to another part of the project or to some external resources. For example, one may use such a feature to link an example illustrating a fact or an idea to other examples corroborating or contradicting this first example, or to recreate a sequence of events over time by connecting successive events. The QDA Miner hyperlink feature may also be used to associate a coded segment to a specific geographic location or a specific time, allowing one to locate an event both in space and time.

Six types of hyperlinks are available in QDA Miner, allowing one to associate a piece of information with:

1. a web page;
2. a file on your computer system or available on your network;
3. a geographic location (with optional time information);
4. a time tag or time range;
5. another case;
6. a text or a coded segment.

### To add a hyperlink to a text segment (document variables only)

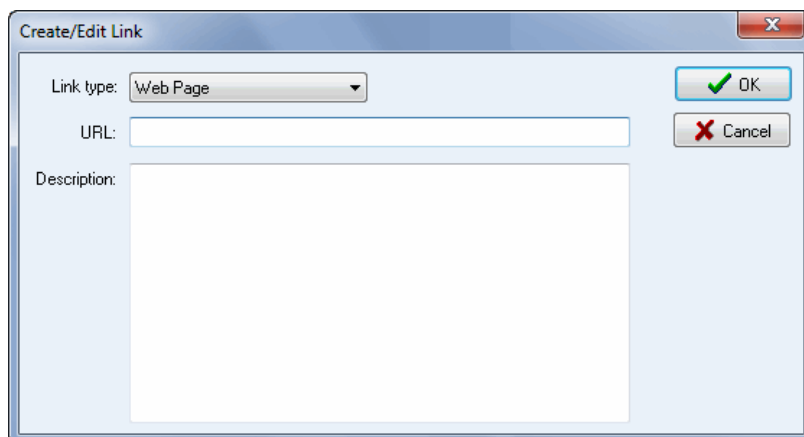
- Select the text to which you want to attach a hyperlink
- Right-click to display the shortcut menu and select the ADD command from the HYPERLINK menu item

**NOTE: Because of the way hyperlinks are stored in the document, they cannot include the start or the end of a coded segment. For this reason, when such a text segment is selected, the command to create a hyperlink is disabled. An alternative solution is to attach the hyperlink to a code rather than to the text itself.**

### To add a hyperlink to a coded segment (document and image variables)

- Select the coded segment to which you want to attach a link by clicking its code mark
- Click a second time to display the shortcut menu
- Select the ADD command from the HYPERLINK menu item

A dialog box like this one will appear:




The **Link Type** list box allows you to specify which type of link to create. While the available options in this dialog box may differ depending on the selected link type, all link types share a common option that allows one to enter a **Description**. This edit box can retain the reasons why such a link was created, specify the nature of the relationship between the source and the target items, or add any comment. One may also type in some keywords that may later be searched for using the **Link Retrieval** feature.

The following section describes the specific options and data requirements associated with the different types of links. Geographic links will be discussed in a separate section.

### Web Page

**URL** – This option lets you specify the URL of the web page you would like to associate with the selected item. In order to be recognized as a web link, the `http://` or `https://` prefixes should be included. The most convenient way to write a web URL is by opening the desired web page, copying the address from the URL box that appears at the top of the browser, and pasting it into the URL edit box.

### External File

**File** – This option lets you type in a file name you would like to have associated with the selected item. This file may be a document, an image, a video or any other type of file, including executable applications. Clicking the  button allows you to browse through your computer to locate the desired file. Once the file is selected, its full path appears in the edit box. The **OK** button used to confirm the creation of the hyperlink will only be enabled if the typed file name points to an existing file.

### Geographic Location

See Geo-Tagging Documents and Images


## Time Stamp or Range

This type of link may be used to attach a specific time tag or time interval to the selected text or coded segment, allowing one to later perform coding retrieval based on dates or create timelines representing a sequence of events over time. The **Label** option may be used to store a single-line description of this event. The **Date** option is used to specify the basic date and time information. To specify a time range rather than a single time point, check the **To** box and then set the ending date and time.

An **Icon** may also be associated with a time stamp or time range. This icon may later be displayed in timelines created by QDA Miner. You can change the icon of a specific time link by clicking the **Icon** button to the right of the dialog box and by choosing a new icon from a palette. QDA Miner allows one to choose among available Google Earth icons or offers the option to create your own icon.

**NOTE: While clicking other types of links causes QDA Miner to move to another location or another application, clicking a time stamp or range link has no effect. Links with dates may, however, be searched based on date intervals.**

## Another Case

To create a link to another case, you first need to select it by clicking the  button. You will be presented with a dialog box showing a list of all cases. Select the case you want to point to and click **OK**. The case description will automatically be stored in the **Case** edit box. This description can be edited to provide additional information.

## Text or Coded Segments

Creating a link to another text or coded segment is done in a two-step process:

### Step 1. Set the source segment

- Choose the text or coded segment to which the link should be attached and run the **HYPERLINK | ADD** command
- Set the link type to **Text or Coded Segment**
- Enter a description (optional) and then click **OK**. You will be returned to the main QDA Miner screen

### Step 2. Set the destination segment

- Move to the segment where the source segment should point
- Select it and run the **HYPERLINK | SET AS DESTINATION** command from the contextual menu

You will be asked whether you want to create a link back to the source. Selecting **Yes** will attach a second hyperlink to the destination segment that will point to the original segment, allowing you to jump back and forth between the two locations. Selecting **No** will create a single link from the source segment to the destination segment.

## To edit a hyperlink

- For hyperlinks associated with a coded segment, select its code mark from the right margin of the document (for images, you can also select from the bottom margin). For hyperlinks associated with a text segment, position the editing cursor anywhere within the text
- Right-click to display the shortcut menu and select the **EDIT** command from the **HYPERLINK** menu item. Close the dialog box when finished editing. Note that it is not possible to change the hyperlink type with the **EDIT** command. To perform such a change, the hyperlink must be deleted and recreated

## To delete a hyperlink

- For hyperlinks associated with a coded segment, select its code mark in the right margin of the document. For hyperlinks associated with a text segment, position the editing cursor anywhere within the text
- Right-click to display the shortcut menu and select the DELETE command from the HYPERLINK menu item

## To follow a hyperlink

- Move the mouse cursor over the code mark or the coded segment containing the hyperlink
- Hold the Control key down and click the link. One may also right-click to display the shortcut menu and select the FOLLOW LINK command from the HYPERLINK menu item

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## QDA Miner and Chapters 7, 8 & 9 – Coding

*Chapters 7, 8 and 9* discuss coding, coding schemes and coded retrieval as key tools of qualitative analysis. We discuss the terminology and philosophies which underpin coding processes. Specific methodologies use particular routines when coding. More general thematic analyses or less code-based methods may use coding devices in ways which include data reduction strategies, indexing and marking data. The structures of coding schemes, alternate groupings and basic retrieval mechanisms are key to moving forward with analysis. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections included in the chapter:

Inductive, deductive and abductive approaches

Theoretical coding

Grounded Theory

Visual data, coding directly or via a transcript

Retrieval

Filtering devices

Horizontal or Vertical cuts

Moving on

Quantitative overviews

Hierarchical and non-hierarchical coding schemes

How to escape the structures of your coding scheme

Sets and alternative grouping mechanisms

If you need reminding on how to create codes and your coding frame.

### How to apply codes to text and images

To assign a single code to a segment of text:

You can use several methods to assign codes to text segments.

#### Method 1 – Quick assignments of codes to whole paragraphs

- Select the code from the code list (bottom left of the screen) by clicking it and holding the mouse button down
- While holding the mouse button down, drag the mouse cursor over the paragraph you want to code
- Release the mouse button to assign the dragged code to the paragraph found under the mouse cursor

#### Method 2 – Highlight text and double-click the code

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- Highlight the text segment that you want to code
- Double-click the code in the code list

#### Method 3 – Highlight text and drop the code

- Highlight the text segment that you want to code
- Drag an item from the code list to the selected segment

#### Method 4 – Using the code list tool button.

- Select the proper code from the list box located in the toolbar above the document
- Highlight the text that you want to code
- click the  button

The last code used can be quickly assigned to a newly selected text segment by right-clicking in the document and selecting the CODE AS command from the shortcut menu.

#### To assign several codes to the same segment

If you hold the **Ctrl** key down while assigning a code to a text segment, the text segment will remain highlighted. You can then assign other codes to the same segment by double-clicking them in the code list or by dragging them from the code list to the highlighted segment.

#### To assign a single code to a graphic area

You can use several methods to assign codes to a graphic area.


##### Method 1 – Select the area and double-click the code

- Select the area of the graphic you want to code
- Double-click the code in the code list

##### Method 2 – Select the area and drop the code

- Select the graphic area that you want to code
- Drag an item from the code list into the selected area

##### Method 3 – Using the toolbar

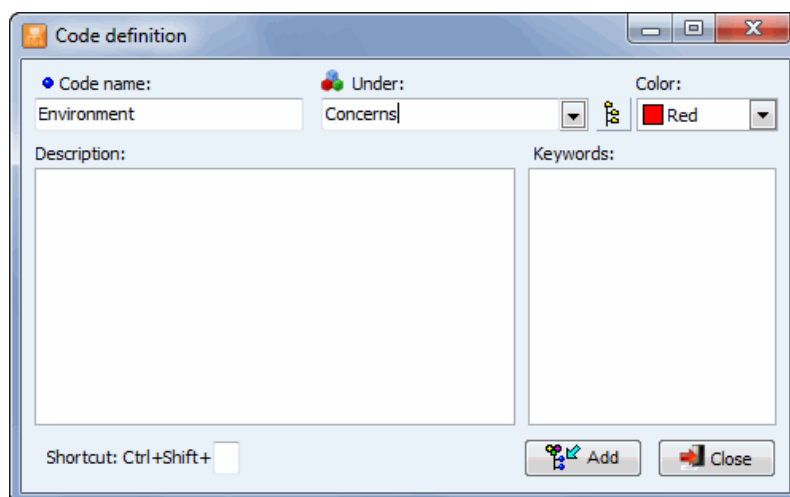
- Select the proper code from the list box located in the toolbar above the image
- Select the area that you want to code
- Click the  toolbar button

#### To assign several codes to the same area

If you hold the **Ctrl** key down while assigning a code to a graphic area, the selection will remain active. You can then assign other codes to the same area by double-clicking them in the CODES window, or by dragging them from the code list to the selected region.

## How to attach a description to a code

To attach a description to an existing code, highlight the code you want to describe in the CODES window, and select the EDIT command from the CODES menu. The following dialog box will appear:

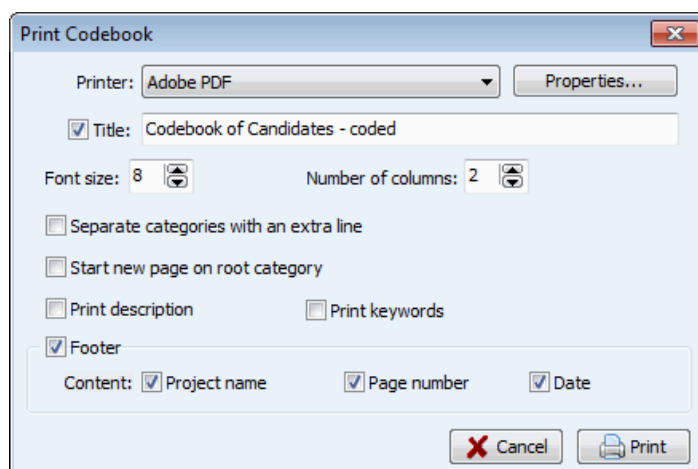


The **DESCRIPTION** edit box allows you to enter a definition or a detailed description of the code.

Once finished, click **OK** to apply the changes, or **Cancel** if you do not want to save the new description.

## How to print a codebook

To create a printed version of the codebook, select the PRINT CODEBOOK command from the CODES menu. A Print dialog box like the one below will appear, allowing you to set various options of what and how the codebook should be printed.



**PRINTER** Select the desired printer. To adjust the printer settings, such as the page size and orientation or printer resolution, click the **PROPERTIES** button.

**TITLE** Use this option to specify a particular line of text that will appear at the top of each page.

**FONT SIZE** This option is to adjust the font size used to print the dictionary items.

**NUMBER OF COLUMNS** The codebook may be printed with up to seven columns per page, allowing one to print large codebooks on fewer pages. Please note that when increasing the number of columns per page, it may be necessary to decrease the font size to prevent the overlapping of items in adjacent columns.

**SEPARATE CATEGORIES WITH AN EXTRA LINE** Setting this option skips a line every time a category name is encountered, allowing it to clearly delineate groups of codes belonging to the same category.

**START NEW PAGE ON ROOT CATEGORY** Root categories are the codebook categories still visible when the codebook is fully collapsed. Selecting this option instructs the program to start the printing of all items starting with each root category at the top of a new page.

**FOOTER** Enable this option to print a footer at the bottom of each page. A footer can consist of up to three items: The **Project Name** (printed on the left margin of the footer), the **Page Number** (located at the bottom center of the page) and the **Date** (printed on the right margin of the footer).

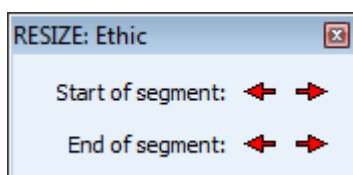
**PRINT DESCRIPTION** Select this option to print not only the code names, but also their descriptions. The description is printed in italics just below the code name.



**PRINT KEYWORDS** This option prints the keywords and key phrases associated with each code.

## How to resize coded segments

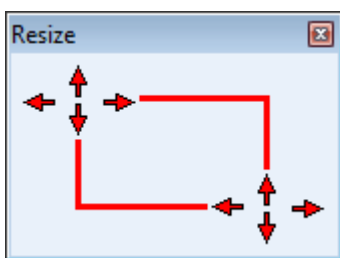
### To resize a coded segment

- Select the coded segment that you want to resize by clicking its code mark
- Click a second time to display the shortcut menu
- Select the RESIZE command >
- For document variables, a small window like the one below will appear



From this dialog box, you can move the starting or ending location of the selected segment by clicking the corresponding arrow button. Clicking a  button moves the chosen limit of the segment back to the left and up while clicking a  button moves this limit forward to the right and down.

- For image variables, the resizing dialog box will look like this:



From this dialog box, you can move the upper-left and lower-right coordinates of the selected area by clicking the corresponding arrow button.

You can repeat the same move several times by clicking and holding the mouse button down. Release the mouse button when you are done.

## How to remove a coding

### To remove coded assignments


Two methods may be used to remove codes assigned to text or image segments.

#### Method 1 – Using the coded segment panel

- Select the coded segment that you want to delete by clicking its code mark
- Click this mark a second time or right-click to display a shortcut menu
- Select the REMOVE CODING command

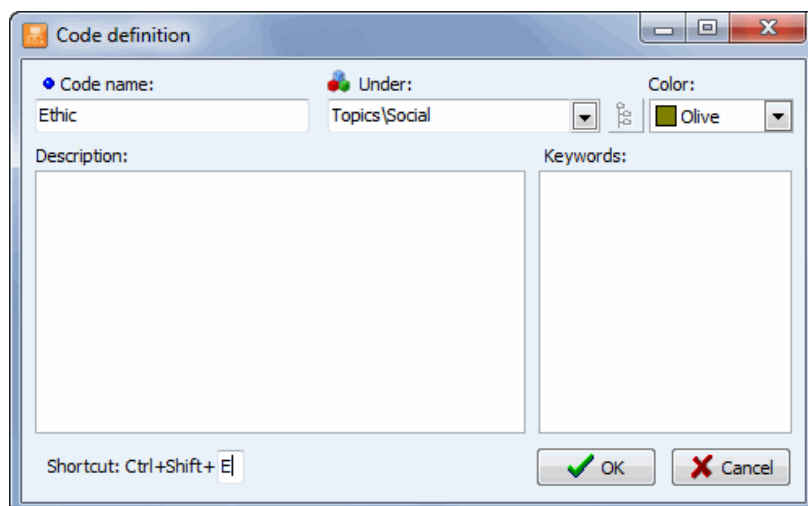
#### Method 2 – Using the code deletion dialog box

The **Code Deletion** dialog box allows you to delete one or more codes in the currently selected document or image.

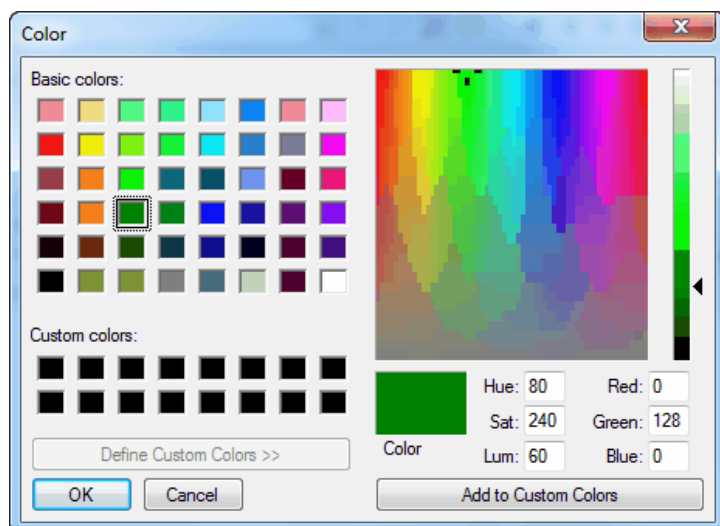
- Click the  button located on the toolbar of the document window. A list of all codes assigned to the current document or image will appear
- Select the names of all the codes that you want to remove
- Click the OK button

## How to change the color of a code (already seen in chapter 5)

When a code is assigned to a text segment or an image area, a bracket appears in the margin of the document window to indicate the beginning and end of the code along with the code name. To modify the color associated with a specific code, simply select the code or the category that you want to edit and then select the EDIT command from the CODES menu. A dialog box similar to this one will appear:



Click the down arrow key on the right side of the color list box to choose a different color. One can select from a set of 16 predefined colors or choose **Custom...** to bring a dialog box like the one below, allowing one to choose any color supported by your Windows system.



Once finished, click **OK** to apply the changes, or **Cancel** if you do not want to save any changes.

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## QDA Miner and Chapter 10 – Managing Interpretations

*Chapter 10* in the book is all about managing interpretations; managing where and how you make analytic notes, using software structures to ensure your thoughts do not get forgotten or your notes lost. Ways of expressing or visualizing connections and relationships are sometimes provided in software and help in the generation and management of the ideas that you have about the data. The literature that informs your work is very important and these software programs can be used in many different ways to manage cross referencing with substantive data or to manage the literature review itself. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections included in the chapter:

Writing as continuous analysis

Critical Appraisals of literature

Analytic memos

Process memos

Definitions

Linking notes to data

Integrating notes with other work

Visualising memos

### Managing the results and the compilation of analysis in QDA Miner

As discussed in Chapter 6 QDA Miner offers several memo tools.

- a. Some text may be attached to the entire project by pressing the F4 key
- b. Attach comments to specific cases by creating additional document variables
- c. **Attach comments and various outputs stored in the *Report Manager***
- d. Make log entries in the command log window. This section focuses on how to attach comments to coded segments
- e. **Integrate bibliographic exported *RIS files* into the QDA Miner project**

### How to use the Report Manager

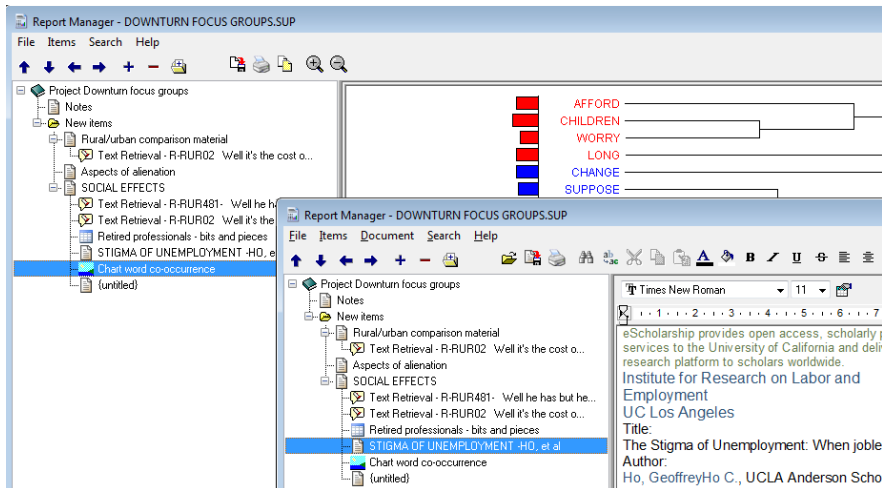
Also see the Report Manager –analytic and process style topics can be set up as Reports under which selected coded segments and other output can be saved (within the project workspace in QDA Miner). These can be used as signposts – flagging analytic areas which need attention. These can remain empty until it is time to save segments or add an output to the Report manager.

### Open the Report Manager

Project menu/Report Manager – once open it will remain open but be iconized in the background

## Create and compile a Report

To create a new Report – (find the top item will be named after the project right click at the top level) /'New' name it usefully. Note that also at that point you could have imported any file. You will now be able to arrange different aspects of your report writing or collect segments of text or output in a hierarchical arrangement. See illustration.



You can do several things now: with the new item selected – you can just write along side it (in the empty pane to the right)

Having run a Coded Retrieval (Retrieval menu) you can for instance 'Save' individual coded segments (by right clicking on a coded segment in the table)

Or

Add a whole table output to the Report Manager – Select the 'Append table to Report' icon at top of retrieval pane.

It will be placed somewhere in the hierarchical listing in the Report area and you can then drag it to be exactly where you want the saved items to appear under the hierarchical report area you want

## How to view / assemble a Report

You can look at individual aspects you have saved by selecting each one in turn – or you can export the whole Report (File menu/Export/) and check the items you want included – then all items will be included in one report.

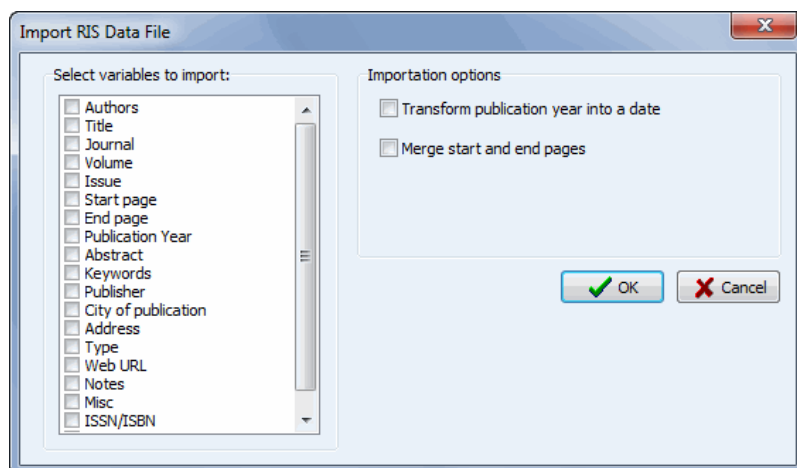
## How to create a project from RIS data file?

QDA Miner can import data created by reference management software (like EndNote, Reference Manager, ProCite, Zotero), as well as many digital libraries (such as IEEE Xplore, ScienceDirect, SpringerLink). To import data, you need to export from those programs or services the references into an RIS data file. RIS files are structured text files and have by default a TXT file extension. To import such a file, set the file type list box to Reference Information Management (RIS) and then select the file you wish to import. Another approach is to change the file extension to RIS. QDA Miner will automatically recognize this file extension and import the references in this file without the need to specify the proper file type.

Once a file has been selected for importation, QDA Miner displays a dialog box similar to this one:

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The following importation options are available:

**Select variables to import** – This list box allows you to put check marks beside variables that you want to import. All unchecked items will be ignored.

**Transform publication year into a date** – The publication dates in RIS files can consist of a full date, with days and months, or only the year, or sometimes the publication month and year. By default, QDA Miner will import just the publication year and store it in an integer variable. Choosing this option will store all dates into a DATE variable. If only the year is specified, QDA Miner will set the day and month to January 1. If the publication date consists of a month and a year only, then QDA Miner will set the day to the first day of the month.

**Merge start and end pages** – By default, start-page and end-page numbers are stored in separate variables. Selecting this option will join both numbers with a hyphen character and store those in a single string variable.

Once the options have been set, click the **OK** button.

## QDA Miner and Chapter 12 – Organizing data to known characteristics

Chapter 12 discusses the variety of ways organisation of data can happen and the importance of particular organizing tools to enable different levels and complexity of interrogation. Chapter 6 discussed basic structures like folders which enable simple tidying up and filtering. This chapter takes the subject further and focuses on the need to assign multiple variables or attributes to each respondent or case, so that comparing within or across cases can happen via combinations of data and subset characteristics if required. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections include:

- Illustrating the potential for interrogation
- Timing, when to put organisational structures in place
- Organising whole documents
- Organising parts of documents
- Auto coding structures in documents

### How to create variables – to assign e.g. socio-demographics to data

You may have already done several things earlier to organize data so some of these steps repeat what was covered then:

- As a natural process of setting up an empty project you may have created variables with the right 'data type' variables, e.g. Document, Image. In order to later house your data
- You will also have set up Cases and Groups/Descriptors which act a bit like folders

These are all aspects of organisation which will help you to interrogate or simply view the data required.

The ADD command in the VARIABLES menu is used to add new variables to the project file. This command displays a dialog box similar to the one used to create variables for a new data file.

The **Variable Definitions** dialog box will appear.

The first step involved in creating a new project file is to define the initial structure of the project file. This structure is defined by the list of variables that each case will contain. A variable may contain a document or an image to be manually coded, but can also consist of a numeric value, a date, a Boolean value (true or false), etc. A single project can contain up to 2035 variables per case. It is possible to create several document and image variables for each case. The ability to store many documents per case is especially useful when the project involves a set of several document types. A document variable may also be created to store notes or comments that are specific to a case. QDA Miner can later be instructed to search and analyze specific document or image variables or in all documents.

Variable definitions

Identification:

Variable name: GENDER

Description: Gender of the participant

Data type: Nominal/Ordinal Values: Male Edit...

Add Remove

VARIABLE NAME	DATA TYPE	DESCRIPTION
NAME	String (20)	Name of the participant
AGE	Integer	Age of the participant
SELECTION	Document	Interview transcript

Create Cancel

In the Variable Definitions dialog box (see above), you can define various attributes for these new variables, such as their name and whether they will contain numeric, alphanumeric values, or dates.

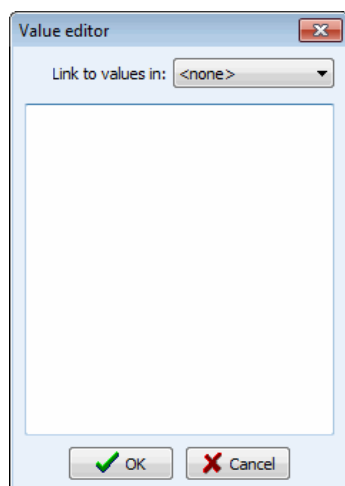
**VARIABLE NAME** The first edit box at the top of the dialog box allows you to enter a variable name. Each variable name must be unique (within that project file). Valid variable names begin with a letter and may contain letters, numbers or underscore characters. Punctuation marks, blank spaces, accentuated and other special characters are not permitted. The maximum variable name length is ten characters.

**DESCRIPTION** The Description option is used to enter a variable label that describes in more detail the content of the variable. You may leave this column blank if you wish since it is always possible to add or edit a description later using the VARIABLES | PROPERTIES command.

**DATA TYPE** Each variable in the data file must have a type. QDA Miner supports the following types:

- **Document** This data type is used to store documents that will be manually coded. QDA Miner stores text in this data type using Rich Text Format (RTF). This format enables the use of different fonts and styles and paragraph formatting. Graphics and tables may also be inserted in the document. Numerous file formats may be directly imported into document variables, such as plain ASCII files (\*.TXT), Rich Text files (\*.RTF), MS Word documents (\*.DOC), HTML (\*.HTM or \*.HTML) and WordPerfect documents (\*.WPD)
- **Image** This data type is used to store graphics that will be manually coded. Numerous file formats may be directly imported into document variables, such as Windows bitmaps (\*.BMP), Windows Meta Files (\*.WMF), or Enhanced Meta Files (\*.EMF), Compuserve Graphic Interface (\*.GIF), Portable Network Graphics (\*.PNG) or JPEG files (\*.JPG or \*.JPEG)
- **Numeric** Numeric variables can contain either integer or floating-point numbers. When you choose floating point numbers, you will be asked to specify the number of decimal places to display. Floating-point numbers are stored in the data file using double precision values (at least 15 significant digits). The option is used exclusively to control how numeric values are displayed in the Variables grid and in other locations and does not affect the internal precision of the variable
- **Nominal/Ordinal** Nominal or ordinal variables are used to hold a limited number of short strings used to describe specific properties of a case. For example, you may choose to use this variable type to identify the gender of the interviewee ("male" or "female") or its group membership ("manager", "employee", "client", etc.). You may also use this data type to hold ordinal ranking ("novice", "intermediate", or "expert") or responses to close-ended questions such as Likert scale items (e.g.: from "strongly disagree" to "strongly agree"). You should use this data type instead of short strings if you plan to analyse this variable or examine the relationship between its values and any other variable or coding of documents

When a nominal/ordinal data type is selected, you will be asked to first provide a list of values that this variable can take. To enter new values, click the EDIT button. A dialog box similar to the one below will appear:



- You can start typing values (one value per line) in the large edit box. If the current variable uses the same values as another existing variable, you may also establish a link to this other variable so that they will share the same list of values. Click OK to confirm the setting of these values. Note: this list may later be modified to add new values or edit existing ones
- • **Date** The date type holds a year, month and day. The display and data entry format used for dates is based on the Windows date setting
- • **Boolean** The Boolean type stores a value that can be either true or false (or Yes or No)
- • **Short String** Short string variables can contain up to 254 alphanumeric characters. When creating a short string variable, you must first specify the maximum number of characters this variable will hold

### To create a new variable

- Enter a unique variable name
- Enter a description (optional)
- Select the data type for this variable
- Set the option associated with the chosen data type (see above)
- Click the Add button to add the defined variable to the list

### To remove a variable from the list

- Select the row containing the variable you want to remove
- Click the Remove button

### To change the position of a variable in the list

- Select the row containing the variable you want to move
- Click the up or down arrows located to the right of the grid until the variable appears in the desired location

## To append the variables to the data file

- When you have finished defining the structure of the new project, click the **APPEND** button to create these new variables and add them to the end of the current data set

The use of Variables and other organizing devices such as Cases, Group descriptors etc is all about the interrogation of data within and across those entities of data. Variables for instance can be selected as a filtering device in most forms of retrieval and querying process. See the next set of exercises associated with the discussion in Chapter 13 in the book.

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## QDA Miner and Chapter 13 – Interrogation

Chapter 13 in the book discusses interrogation of data that can happen at varied levels and at many moments during analysis. In Chapter 6 we refer to Text search tools where the content is explored and to Interrogation can also happen in terms of coding work you have previously achieved (see also Chapter 8 regarding retrieval of coded data). You might wish to discover relationships between codes which co-occur in some way in the data or need to compare them across subsets of data (indicated by the application of variables or attributes to data). Types of queries vary from simple to complicated tasks; summarized, charted information where the results are already available in the background is available in some software. *See all coloured illustrations (from the book) of software tasks and functions, numbered in chapter order.*

Sections included in the chapter:

- Incremental and iterative nature of queries

- Creating signposts for further queries

- Identify patterns and relationships

- Qualitative cross tabulations

- Quality control, improving interpretive process

- Tables and matrices

- Charts and graphs

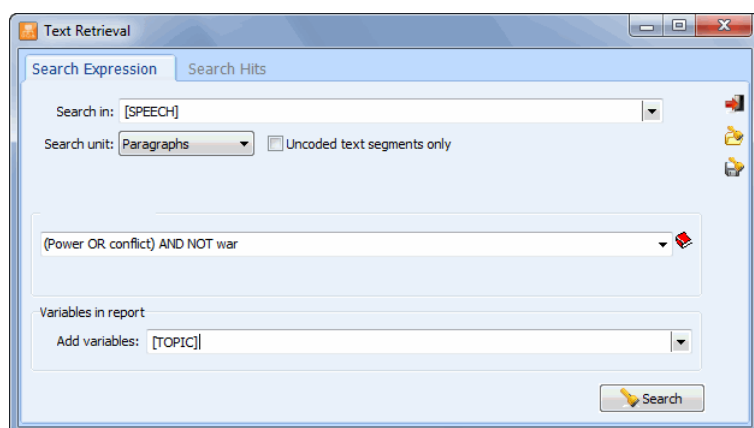
In QDA Miner, there are many ways to interrogate coding and content of the data. There are many types of query in QDA Miner such as the pattern matching Query by Example below (also discussed in Chapter 6). There are further advanced quantitative analyses of content at the push of a button when using the add-on the WordStat module.

### How to use the TEXT RETRIEVAL tool to retrieve relevant text segments

The TEXT RETRIEVAL function searches for specific text or combination of text in documents. You can search in all documents in a project or restrict the search to specific document variables. Searches can also be restricted to specific coded segments.


To start the text search feature, select the TEXT RETRIEVAL command from the RETRIEVAL menu. The following dialog box will appear.

On the first page, you can set the search conditions while results are displayed on the **Search Hits** page. When entering this dialog box, the second page is normally disabled. As soon as a search returns at least one hit, QDA Miner will enable this second page, allowing you to review the search hits and optionally assign codes to them.



The **SEARCH IN** option allows you to specify which document variables to search. If the current project contains more than one document variable, you will have a choice of selecting either one or a combination of them. By default, all document variables are selected. To restrict the analysis to only a few of them, click the down arrow key at the right of the list box. You will be presented with a list of all available document variables. Select the variables on which you want the search to be performed.

The **SEARCH UNIT** option determines the search unit on which the search will be performed as well as what will be retrieved. You can select three different search units:

- If you select **Documents** as the search unit, QDA Miner will apply the search expression on each document associated with a specific case. If a specific document meets the search condition, its location will be returned
- When selecting **Paragraphs** as the search unit, QDA Miner will return any paragraph meeting the search condition
- Select **Sentences** to instruct QDA Miner to return sentences meeting the search condition
- Selecting **Coded Segments** as the search unit allows restricts the search to the text segments that have already been coded. When a coded segment meets the search condition, its entire text is returned, no matter whether it is a single word or several paragraphs. To restrict the search to specific codes, select the **Selected** radio button to the right side of this option and select the codes from the drop-down checklist by clicking the arrow button to the right end of this list. These codes can also be selected from a tree representation of the codebook by clicking the  button. To perform the search on all codes, choose the **All** radio button

When searching sentences or paragraphs, one may restrict the retrieved text segments to those that have not been previously coded by enabling the **Uncoded Text Segment Only** check box.

**SEARCH EXPRESSION** This edit box is used to specify words or phrases being searched for. If disabled, the search will retrieve all text segments, no matter what their content. To search for a single word, simply enter the word in the edit box. In order to search for a phrase, you need to put the phrase between quotation marks or replace the space between words with underscore characters. For example, entering either:

"quality of life"

or

quality\_of\_life

with retrieve text segments containing this phrase.



The Boolean operators AND, OR and NOT may also be used to build complex search expressions. For example, the following search string:

angry OR mad

will retrieve any search unit containing either the word "angry" or the word "mad". Parentheses may also be used to specify the evaluation order in complex search expressions. For example, if you enter the following search expression:

(angry OR mad) AND (son OR daughter OR child)

and set the **Search Unit** option to **Paragraphs**, QDA Miner will return all paragraphs containing either "angry" or "mad", but only if this paragraph also contains either one of the three words found in the second set of parentheses (e.g. "son", "daughter" or "child").

If several words are entered without a Boolean operator, then QDA Miner will assume that all those words are required, and thus behave as if you had entered an "AND" operator between those words.

## Using wildcards in search expressions

A wildcard is a character or a set of characters that may be used in a search expression to represent one or more other characters. QDA Miner support the following wildcard:


?	Matches any single character. For example <b>F?T</b> will find <b>FAT</b> , <b>FIT</b> and any other combination of three characters beginning with 'F' and ending with 'T'
*	Matches any number of contiguous characters. For example, <b>T*ENT</b> will return every word starting with 'T' and ending with 'ENT' such as <b>TENT</b> , <b>TORRENT</b> , <b>TANGENT</b> , etc
#	Matches any numeric character
[ ]	Matches any of the specified characters at that position. For example, <b>[abc]</b> will match if a or b or c at that position
[^] or [!]	Matches anything but the specified characters at that position. For example, <b>[^abc]</b> will match any single character, but a, b, or c
[a – e]	Matches a through e at that position
_	The underscore character may be used to replace space within words. For example searching for <b>QUALITY_OF_LIFE</b> will match any instance of this phrase

## Performing thesaurus-based searches

A thesaurus-based search allows one to search for several words or phrases associated with a single thesaurus entry previously defined. For example, by entering a single category @GOOD (with an ampersand character "@" as a prefix), the program can automatically search for items that have been associated with this category, like "good", "fine", "excellent", "all right", "topnotch", etc. Names of categories may be typed directly in the search expression by preceding the category with a # character. For example, the following text search expression:

@GOOD and @SERVICE


will retrieve all text units containing either one of the words or phrases associated with the thesaurus entry GOOD along with any word or phrase included in the SERVICE thesaurus entry.

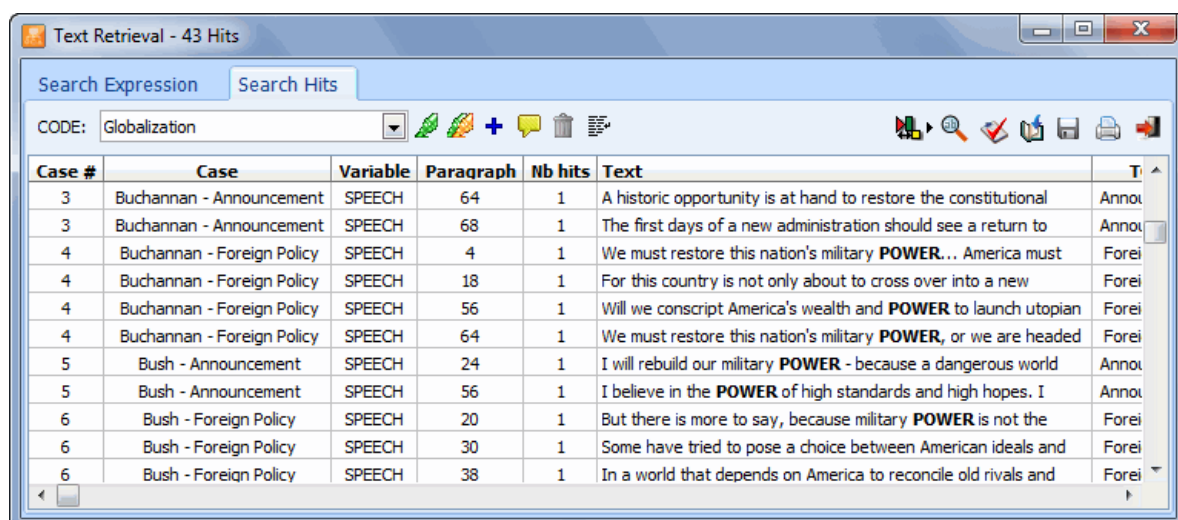
One may also insert a category, by clicking the  button to display the thesaurus editing dialog box, selecting the thesaurus entry and then clicking the Insert button. The Thesaurus Editing dialog box allows one to create new entries or edit existing ones.

**WHOLE WORDS** This option defines whether the words in the search expressions may be part of a word or if only whole words are to be found. For example, if this option is disabled, searching for a word like "bank" will return any search unit containing not only "bank", but also "banking", "bankruptcy", etc.

**CASE SENSITIVE** This option defines whether the search is case-sensitive or not. If enabled, only words with the exact same cases will be returned.

**ADD VARIABLES** This drop-down checklist box may optionally be used to add the values stored in one or more variables to the table of retrieved segments for the specific case from which a text segment originate.

To perform the search, click the  button. The results of a search are displayed in a table located on the **Search Hits** page.




The screenshot shows a software window titled "Text Retrieval - 43 Hits". It has two tabs: "Search Expression" and "Search Hits". The "Search Hits" tab is active, displaying a table of search results. The table has columns: Case #, Case, Variable, Paragraph, Nb hits, Text, and a small icon column. The search expression "Globalization" is entered in the "CODE:" field. The results table contains 10 rows of data, showing various cases and their associated text segments.

Case #	Case	Variable	Paragraph	Nb hits	Text	
3	Buchanan - Announcement	SPEECH	64	1	A historic opportunity is at hand to restore the constitutional	Anno
3	Buchanan - Announcement	SPEECH	68	1	The first days of a new administration should see a return to	Anno
4	Buchanan - Foreign Policy	SPEECH	4	1	We must restore this nation's military <b>POWER</b> ... America must	Forei
4	Buchanan - Foreign Policy	SPEECH	18	1	For this country is not only about to cross over into a new	Forei
4	Buchanan - Foreign Policy	SPEECH	56	1	Will we conscript America's wealth and <b>POWER</b> to launch utopian	Forei
4	Buchanan - Foreign Policy	SPEECH	64	1	We must restore this nation's military <b>POWER</b> , or we are headed	Forei
5	Bush - Announcement	SPEECH	24	1	I will rebuild our military <b>POWER</b> - because a dangerous world	Anno
5	Bush - Announcement	SPEECH	56	1	I believe in the <b>POWER</b> of high standards and high hopes. I	Anno
6	Bush - Foreign Policy	SPEECH	20	1	But there is more to say, because military <b>POWER</b> is not the	Forei
6	Bush - Foreign Policy	SPEECH	30	1	Some have tried to pose a choice between American ideals and	Forei
6	Bush - Foreign Policy	SPEECH	38	1	In a world that depends on America to reconcile old rivals and	Forei



The table provides basic information on each hit, such as the case number and label, as well as the document variable in which it was found, the hit location, etc. To sort this list of hits in ascending order on any column values, simply click this column header. Clicking a second time on the same column header sorts the rows again in descending order.

Selecting an item in this table, either by clicking it or by using the keyboard cursor keys such as the UP or DOWN arrow keys, automatically displays the corresponding case and document in the main window. If the search unit was set to **Paragraphs** or **Coded Segments**, selecting a specific hit will also highlight the corresponding text segment. This feature provides a way to examine the retrieved segment in its surrounding context. You can also assign an existing code to the highlighted segment.


### To assign a code to a specific search hit

- In the table of search hits, select the row corresponding to the text segment you want to code
- Use the CODE drop-down list located above this table to select the code you want to assign
- Click the  button to assign the selected code to the highlighted text segment

### To assign a code to all search hits

- Use the CODE drop-down list located above this table to select the code that you want to assign
- Click the  button to assign the selected code to all text segments meeting the search expression
- Prior to the assignment of a code to all search hits, you may want to remove selected hits that do not correspond to what you were looking for. To remove a search hit from the list, select its row and then click the  button

### To export the table to disk

- Click the  button. A Save File dialog box will appear
- In the **Save As Type** list box, select the file format under which to save the table. The following formats are supported: ASCII file (\*.TXT), Tab delimited file (\*.TAB), Comma delimited file (\*.CSV), MS Word (\*.DOC), HTML file (\*.HTM; \*.HTML), XML files (\*.XML), Excel spreadsheet file (\*.XLS; \*.XLSX), and SPSS data file (\*.SAV)
- Type a valid file name with the proper file extension
- Click the **SAVE** button

### To print the table

- Click the  button

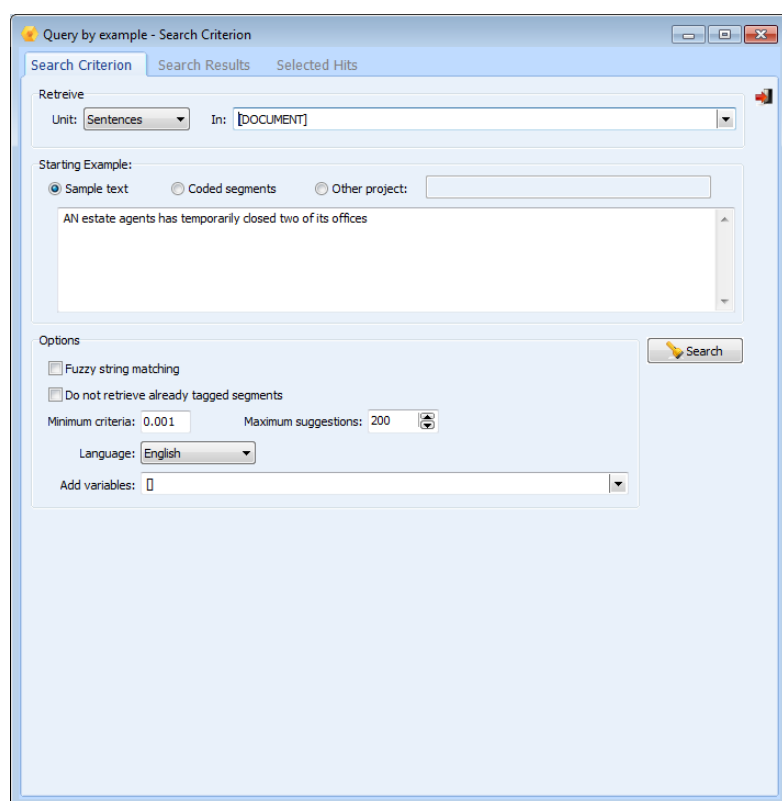
## EXPLORING LARGE DATA CORPUS – USING QDA MINER

How to 'Query by Example' (pattern matching) (WordStat add-on software not required).

One of the advanced content analysis features which relies only on QDA Miner is the *Query by Example* tool.

This is illustrated below. It uses pattern matching to allow the user to select a key passage – sentence, paragraph or just phrase and by using the Query by Example tool discover similar passages in the rest of the data.

Select a short passage of data (as here...“estate agents temporarily closed two offices”) from Retrieval menu – select Query by Example – see dialogue box below.



Along the top line (above) at the first drop-down usually you would choose the Sentence or Paragraph **Unit** of text to retrieve – and opt to search ‘In’ the ‘Document’ (type of data or variable – check the box alongside when you have selected the drop down)

You can experiment with other options in the dialogue box but you are now in a position to hit the **Search** icon in the dialogue box.

See below the list of ‘**Suggestions**’ which results... and in the vertical column to the left you can select the examples that fit – with one click or by a second click – reject them.

If you then Choose the ‘Selected Hits’ button you can add a code to the results if required

**DOCUMENTS:**

**DOCUMENT**

Times New Roman 12

CODE:

0 1 2 3 4 5 6 7

**THIS IS LANCASHIRE**

**Estate agent closes offices due to mar**

9:52am Thursday 2nd October 2008 in [New](#)

AN estate agents has temporarily closed two

downturn Rayson Wilshaw says it had to stre

continues to operate from its three other offic

Owner Martin Wilshaw said it was proving a

buyers are finding it extremely hard to get mor

fees.

"With such adverse publicity, and ongoing cha

"As part of the streamlining, we have tempora

improves.

"Regrettably, we have had to make a few red

Query by example - 22 suggestions

Search Criterion Search Results Selected Hits

Search again

Select relevant and irrelevant items by clicking on the question marks on the left of each row.

	Text	Similarity
?	"As part of the streamlining, we have temporarily closed the offices in Raddiffe and Ramsbottom until the market impro	0.355
✗	AN estate agents has temporarily closed two of its offices in Raddiffe and Ramsbottom due to the current market down	0.335
?	Although the name will survive along with the lettings side of the business, all seven of Sandersons' regional estate age	0.159
?	Estate agent closes offices due to market downturn	0.143
?	Halifax to close estate agents as downturn bites	0.115
✓	HALIFAX is closing 53 of its estate agents branches as a result of the housing market downturn, it announced today.	0.070
?	Hugh Fell, managing partner of Northumberland estate agents George F White, has been helping the Sanderson family	0.049
✓	Owner Martin Wilshaw said it was proving a difficult period for many estate agents: "The difficulty is that prospective bu	0.025
?	Miller is not alone in reporting increased activity. The Halifax building society reported that January house prices were u	0.020
?	A total of 33 two and three-bedroom apartments and five offices are planned for the site, linking the two buildings with	0.020
?	While the focus of the portfolio is weighted towards workspace, warehousing and offices, there are a number of sites t	0.018
✓	The sandwich shop closed in 1981, and the Johnsons moved to Houston.	0.016
?	Thinking I'd got the wrong door, I tried the other one. This time a girl looked up disapprovingly. I shouted to her "Are y	0.016
?	4.47pm:http://www.guardian.co.uk/business/2012/feb/13/eurozone-crisis-greece-austerity-package-vote Time for a q	0.015
✗	The political process has been one of haggling behind closed doors, with issues presented to electorates as a matter of	0.010
✓	The 150-year-old Darlington-based estate agent has been forced to place its sales operation into administration in the t	0.009

## How to further explore text data with WordStat (add-on tool)

The WordStat module offers further numerous tools for performing quantitative content analysis, exploratory text mining, automatic document classification and categorization. It may also be used as an exploratory text analysis tool, allowing one to identify the most salient topics automatically, find vocabulary differences among subgroups of individuals, differences across times, as well as find vocabulary associated with different topics or phenomena identified using qualitative analysis.

The following section provides only a glimpse of WordStat features, by demonstrating tools that may be used to explore the content of a text collection. We will use as the example the full set of documents, news articles and interviews.

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