

## MAXqda 2007 (including MAXdictio, MAXMaps & GEOLinks) Distinguishing features and functions

This document is intended to be read in conjunction with the 'Choosing a CAQDAS Package Working Paper' which provides a more general commentary of common CAQDAS functionality. This document does not provide an exhaustive account of all the features and functions provided by MAXqda 2007 but is designed to highlight some of its distinguishing elements. The Comment section at the end details our opinions on certain aspects of functionality and usability. See also Lewins & Silver (2007) *Using Software in Qualitative Research: A Step-by-Step Guide*, Sage Publications and software developer website.

### Background <http://www.maxqda.com>

MAXqda 2007 is the latest in a software stream originally developed by Udo Kuckartz in order to manage political discourse data on the environment ■ Its application has since widened to multiple academic disciplines and applied research areas ■ Its focus is on textual analysis, although non-textual objects can be embedded within text files ■ The optional add-on module MAXDictio (extra cost) extends functionality to provide basic content analysis style lexical indexing with Key Word in Context (KWIC).

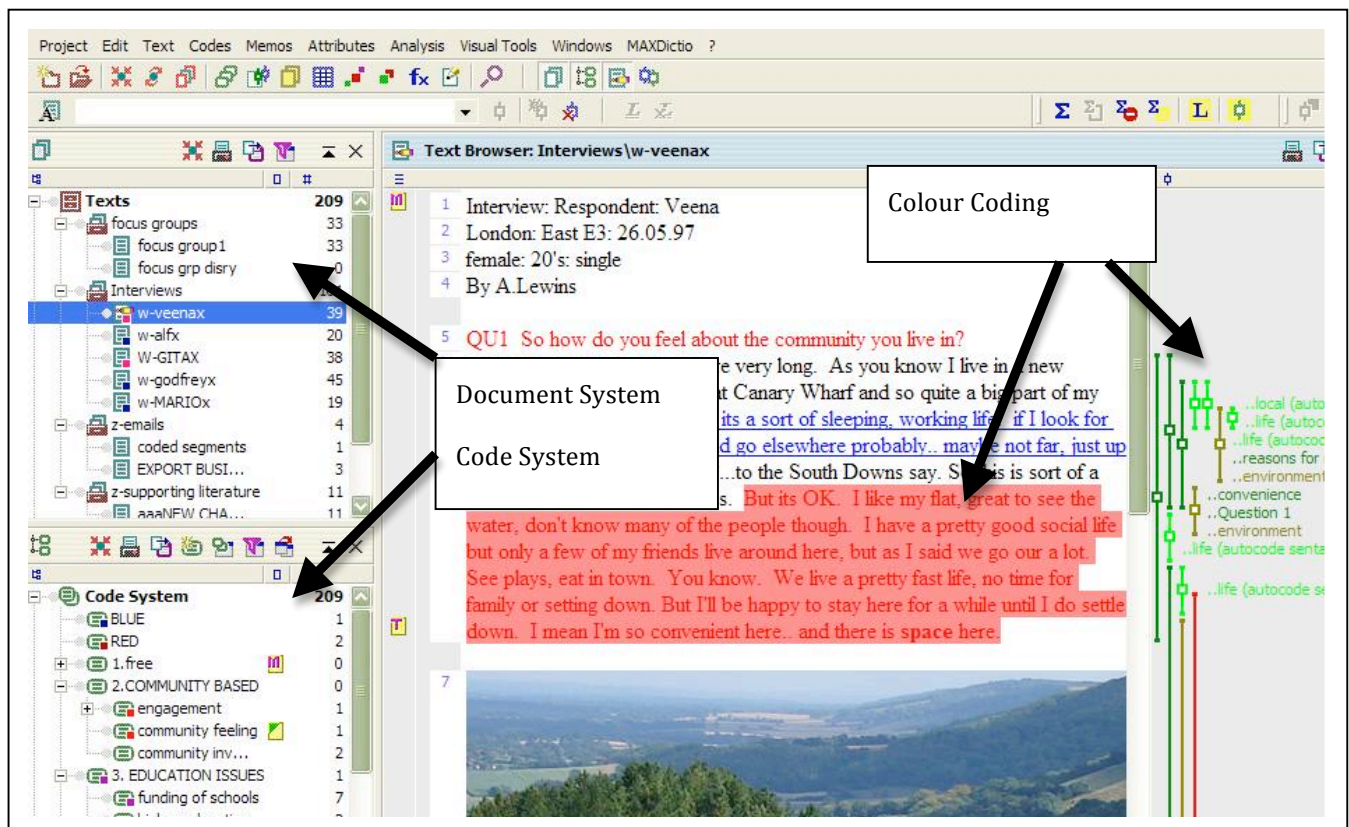
### Minimum System Specifications (recommended by developer)

MS Windows 98 or higher ■ RAM: 64MB (minimum)

### The Structure of work in MAXqda 2007

MAXqda 2007 functions using an internal database system. Texts are contained within the Project, and are moved or saved as part of the project. ■ The user interface comprises 4 windows. The Document System lists project texts. The Code System houses the coding schema. The Text Browser displays individual texts and the Retrieved Segments Window displays coded data. ■ Windows can be resized, opened and closed as required.

**Figure 1. MAXqda 2007 Interface showing Document System and Colour Coding**



### Data types and format in MAXqda 2007

Textual formats: Rich Text Format (RTF) only. ■ Objects such as graphics, tables, and Power Point slides can be embedded into RTF files and hyperlinks can be created from texts to externally held files. ■ Texts can be easily edited within the software but are safeguarded from accidental changes by read-only properties ■ Text line wraps and paragraphs are automatically numbered

### Closeness to data and interactivity MAXqda 2007

Windows containing different elements of work can be displayed and worked with simultaneously. ■ Full and seamless interactivity across different aspects of work (often just one click). ■ All tables displaying frequency information are fully interactive and easily exported ■ Key Word in Context (KWIC) word searches are easily executable and flexible. ■ Basic and complex retrieval of coded data is viewed in its source context at the same time as being lifted out of context providing a good balance ■ The margin display shows codes, memos and GEOLinks, is fully interactive and prints well. It can be filtered in various respects, including by activation, user or colour attribute.

### Coding schema in MAXqda 2007

The coding schema can be as hierarchical or as un-hierarchical as required. ■ Drag and drop allows easy re-organisation of codes across and within hierarchies and into sets. ■ Assign colour to codes which appears in margin display and in the code system ■ Codes on view can be filtered according to chosen colour/s. ■ Codes can additionally be re-organized into sets which act as short-cut groupings

### Coding Processes in MAXqda 2007

Drag and drop selected text onto a code. ■ Assign recently used codes from drop-down menu. ■ Undo recent coding actions. ■ Apply Weight to coded segments within a range of 1 to 100 to indicate how strong an example a segment of data is of corresponding code. ■ Convert code frequencies into numeric attributes. ■ Usual auto-coding devices based on text searches – options to code surrounding sentence or paragraph if additional context required. Automatic coding of text based on requested auto-indexing of selected words after using word frequency tools in MAXdictio (add-on, extra cost)

### Basic Retrieval of coded data in MAXqda 2007

Activation is the central retrieval principle used by MAXqda which is easy to understand and to execute. Combinations of codes and texts are 'turned on' displaying relevant segments in the Retrieved Segments window. ■ Texts can be activated in various ways, including by set or (combinations of) attribute, by weight, hierarchical position in the coding schema or according to colour code attribute. ■ Functional hierarchies allow quick retrieval of data coded at a top level and all its sub-codes together. ■ Centralized Index of Coded Segments provides a tabular interactive listing of coded data across the whole dataset, or for combinations of activated texts and codes.

### Data Organisation in MAXqda 2007

Descriptive organization according to known characteristics is enabled by applying attributes to whole texts or socio-demographic codes to segments of data where several respondents occur within one text, such as in focus-group data ■ Sets of documents provide shortcuts to groups of texts. ■ Texts can also be given colour attributes for visual differentiation.

### Writing Tools in MAXqda 2007

The MAXqda memo system offers options not provided by other software. Memos can be attached to text segments, codes and texts and are displayed with user defined styles of post-it note icons. ■ Individual memos can be linked to any number of relevant codes and can be grouped into types ■ Memos can be retrieved according to several different criteria e.g. all memos linked to a particular code, all memo's within one document, all memos for a Set of documents, all memo's for a text group. ■ Output memos based on these criteria into one file.

### Searching and interrogating the dataset in MAXqda 2007

Interrogate by simple or complex states of activation. ■ Activation by weight adds an extra dimension to searching. ■ Interactive Matrix Browsers allow tabular visualization of code co-occurrences and frequency of codes occurring in (groups of) documents. Matrices are interactively connected to source data. ■ Code frequency table shows frequency of codes across whole data set or amongst activated texts and codes. ■ Text searching provides Key Word in Context (KWIC) retrieval. ■ Usual range of Boolean and proximity operators for retrieving coded text ■ Combine text searching with coded data.

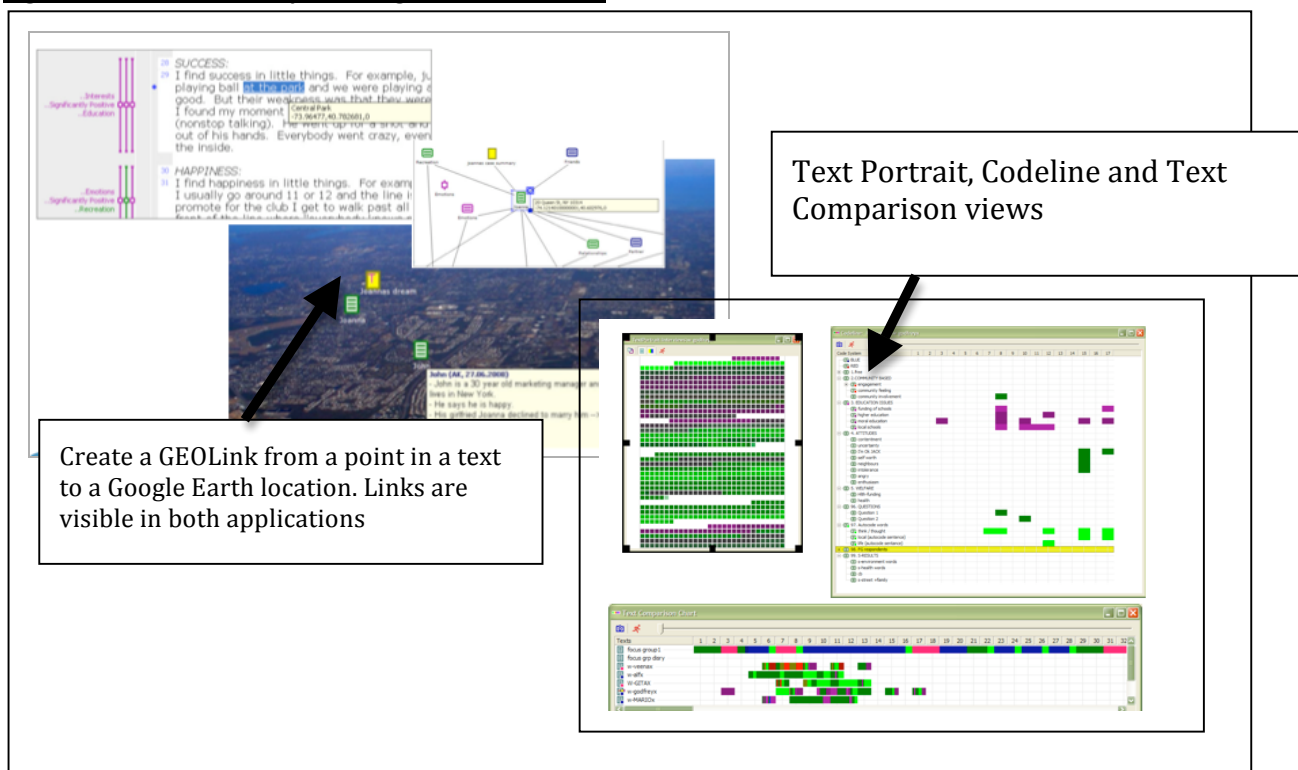
### Linking devices in MAXqda 2007

Pairs of text passages can be linked together. ■ External links to websites. ■ Link memos to one another in map (visual link only) ■ Link memos to codes (functional link) to enable retrieval of writing accordingly.

### Visual tools in MAXqda 2007

Unique to MaxQDA are three devices using interactive colour blocks based on the use of colour attributes assigned to codes to visualize codes distribution in project data. ■ Text Portrait provides a visual overview of how an individual text has been coded ■ Text Comparison Chart compares coding across activated texts. ■ The Codeline provides an interactive visual map by paragraph showing how an individual text has been coded. A single click in any colour block within all three tools provides in-context retrieval. ■ GEOLinks enables any Google Earth™ location to be linked to any text segment or code within MAXqda or inserted into a MAXmap. Direct link from within MAXqda to Google Earth™ ■ MAXMaps is a mapping tool which enables the graphic visualization of all aspects of the project and to embed items not existent in the project – such as photographs etc. Full integration between objects in a map and the rest of the project and good export options

**Figure 2. Some of MAXqda's range of Visual Tools**



## Output in MAXqda 2007

Output combinations of memos into one file (all memos, all memos linked to one data file or a set of files, or all memos linked to one code). ■ Any interactive table produced inside the software can be exported to view in a spreadsheet application ■ Exporting in HTML format : export memos, attributes and coded text segments in HTML format to display in a web browser. ■ Print texts including margin view.

## Content analysis features in MAXqda 2007

MAXdictio (add on module) allows word frequency across (groups of) texts providing a tabular index with interactive Key Word In Context (KWIC) retrieval. ■ Create dictionary to build list of active words. Use dictionary to govern functioning of other tools. Use indexing options to auto-code selected words and surrounding context.

## Teamworking in MAXqda 2007

Merge parts of projects e.g. coding for individual documents, or a textgroup, or a whole project's database can be imported into another. ■ Colour coding may indicate different researchers work, enabling visual comparison. ■ Html output options as well as tabular and text files enable flexible sharing information. ■ MAXqda Reader is a free product enabling those without a MAXqda license to view project data. Useful in diverse team situations where many researchers are involved without the need for everyone to be versed in the use of software.

## Comment on MAXqda 2007

*The MAXqda 2007 user interface is compact, appealing and tidy. Tables, visual tools and memos provide superb interactive contact with different aspects of work keeping the user close to source data at all times. Auto arranging but resizable windows allow easy customization and isolation of element(s) of work. The user interface could be rather cramped with larger datasets.*

*MAXqda 2007 is intuitive, simple and efficient. It is easy to learn and to begin working effectively without the need for extensive training. It includes some simple yet appealing features which users often request, including the ability to colour codes and print off the margin display easily and satisfactorily.*

*MAXqda 2007 makes good use of colour to visually differentiate various aspects of your work. Colour is a very powerful means of organisation and MAXqda 2007 provides several unique uses of colour. These are seemingly simple devices, but valued highly by users and when used systematically can be powerful retrieval and filtering devices.*

*MAXqda 2007 has excellent memo tools. Easy, visual systematic memo retrieval options are particularly useful for team situations. MAXqda 2007 has one of the best memo retrieval systems. The varied nature of memo retrieval means it is less important to be systematic than in other software packages.*

*The principle of activation allows quick and uncomplicated retrieval without recourse to the search tool. Interrogation of the dataset in this way is easy to grasp and manipulate. Automatically generated Code Relations and Code Matrix browsers provide easy clicking to get co-occurrences which are complicated to generate in other leading software.*

*Qual-quant integration is highly developed in MAXqda since it is one of only two packages from which qualitative data in tables (e.g. the text of the open ended questions in Excel) can be imported more or less directly from spreadsheet applications. The automatic conversion of code frequencies into attributes (applied to documents) for chosen coding, potentially enables further manipulation when exported for quantitative analysis. Another unique tool is the ability to easily assign weight to coded segments though like qualitative coding the way the user might make these judgments will be subjective. Qual-quant integration is also reinforced by the*



*ability to easily activate responses or documents on the basis of combinations of attribute values and convert instantly to Sets.*

***Sets of documents and codes in MAXqda 2007 are very useful** as is the ability to save combinations of states of activations, turning what might be complex multiple step query operations in other packages into simple and intuitive processes in MAXqda.*

***In the team situation** users can be selective about which items they merge together thereby allowing cumulative comparison of work. The MAXqda Reader is also a useful way to involve team members who are not using the software directly.*

***Visualisation tools** (using colour attributes for codes) are unusual and easy to operate, with several options unique to MAXqda 2007. The three visual tools using colour blocks to chart codes in data might have particular utility for research which is tracking process or the flow of thought in unstructured narratives. Such tools depend on the researcher deliberately assigning colours to codes in a logical way with a view to using these visualisation tools subsequently. MAXqda was the first CAQDAS package to incorporate the ability to link to geographical reference points in mapping tools (e.g. Google Earth<sup>TM</sup>) using GEOLinks.*

***MAXmaps is a useful tool** allowing the user to create layers and graphically enhance the map in various ways. On the whole however the use of the map is a little stilted since there are three modes in which you can operate and you keep finding yourself in the wrong mode.*

***With the addition of Maxdictio** the software has a small but useful range of content analysis tools not currently available in most other code based packages (apart from QDA Miner). They provide interactive (KWIC) connections to the source context.*

#### Further Reading

- Lewins & Silver (2007) *Using Software in Qualitative Research: A Step-by-Step Guide*, Sage Publications (uses a MAXqda project as worked example)
- Lewins, A. (2008) 'CAQDAS: Computer Assisted Qualitative Data Analysis' in (ed) N. Gilbert, **Researching Social Life** (3rd ed), Sage, London
- Silver, C., & Fielding, N. (2008) 'Using Computer Packages in Qualitative Research', in Willig C & Stainton-Rogers W (eds.) **The Sage Handbook of Qualitative Research in Psychology**, London, Sage Publication (uses a MAXqda project as worked example)
- Corbin J & Strauss A (2007) **Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory - 3rd Edition**, Sage Publications, London (uses a MAXqda project as worked example)
- Gibbs, G. (2007) **Analysing Qualitative Data**, part of the Qualitative Research Kit, ed. U. Flick, Sage, London
- di Gregorio, S & Davidson J (2008) **Qualitative Research for Software Users**, McGraw Hill, Open University Press, UK (uses a MAXqda project as worked example)