<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>1</td>
</tr>
<tr>
<td>ATLAS.ti 9 Quick Tour</td>
<td>1</td>
</tr>
<tr>
<td>ATLAS.ti Account and Licence Activation</td>
<td>2</td>
</tr>
<tr>
<td>Requesting a Trial Version</td>
<td>2</td>
</tr>
<tr>
<td>Activating a Licence</td>
<td>2</td>
</tr>
<tr>
<td>Accessing Your Account from within ATLAS.ti</td>
<td>3</td>
</tr>
<tr>
<td>Logging Out</td>
<td>4</td>
</tr>
<tr>
<td>Limited Version after Licence Expiration</td>
<td>4</td>
</tr>
<tr>
<td>Restrictions of the Limited Version</td>
<td>4</td>
</tr>
<tr>
<td>Introduction</td>
<td>6</td>
</tr>
<tr>
<td>The VISE Principle</td>
<td>6</td>
</tr>
<tr>
<td>Visualization</td>
<td>6</td>
</tr>
<tr>
<td>Immersion</td>
<td>7</td>
</tr>
<tr>
<td>Serendipity</td>
<td>7</td>
</tr>
<tr>
<td>Exploration</td>
<td>8</td>
</tr>
<tr>
<td>Areas of Application</td>
<td>8</td>
</tr>
<tr>
<td>ATLAS.ti -- The Knowledge Workbench</td>
<td>10</td>
</tr>
<tr>
<td>Some Basic Terms</td>
<td>10</td>
</tr>
<tr>
<td>General Steps when Working with ATLAS.ti</td>
<td>10</td>
</tr>
<tr>
<td>Main Steps in Working with ATLAS.ti</td>
<td>12</td>
</tr>
<tr>
<td>Data and Project Management</td>
<td>12</td>
</tr>
<tr>
<td>Two Principal Modes of Working</td>
<td>12</td>
</tr>
<tr>
<td>Data Level Work</td>
<td>13</td>
</tr>
<tr>
<td>Conceptual Level Work</td>
<td>13</td>
</tr>
<tr>
<td>Project Management</td>
<td>14</td>
</tr>
<tr>
<td>Opening a Project</td>
<td>14</td>
</tr>
<tr>
<td>Creating a New Project</td>
<td>14</td>
</tr>
<tr>
<td>Saving a Project</td>
<td>15</td>
</tr>
<tr>
<td>Renaming a Project</td>
<td>15</td>
</tr>
<tr>
<td>Deleting a Project</td>
<td>15</td>
</tr>
<tr>
<td>Creating a Project Backup</td>
<td>16</td>
</tr>
<tr>
<td>Project Transfer</td>
<td>18</td>
</tr>
<tr>
<td>Supported File Formats</td>
<td>19</td>
</tr>
<tr>
<td>Textual Documents</td>
<td>19</td>
</tr>
<tr>
<td>Transcripts</td>
<td>19</td>
</tr>
<tr>
<td>PDF files (Text and Graphic)</td>
<td>20</td>
</tr>
<tr>
<td>Images</td>
<td>20</td>
</tr>
<tr>
<td>Audio- and Video Documents</td>
<td>21</td>
</tr>
<tr>
<td>Geo Documents</td>
<td>21</td>
</tr>
<tr>
<td>Survey Data</td>
<td>21</td>
</tr>
<tr>
<td>Reference Manager Data</td>
<td>21</td>
</tr>
<tr>
<td>Twitter</td>
<td>22</td>
</tr>
<tr>
<td>Adding Documents</td>
<td>23</td>
</tr>
<tr>
<td>What happens when you add documents to a project</td>
<td>23</td>
</tr>
<tr>
<td>Important Note for Team Projects</td>
<td>23</td>
</tr>
<tr>
<td>How to Add Documents</td>
<td>23</td>
</tr>
<tr>
<td>Size Restrictions</td>
<td>24</td>
</tr>
<tr>
<td>A Word about &quot;Big Data&quot;</td>
<td>24</td>
</tr>
<tr>
<td>Working with Quotations</td>
<td>26</td>
</tr>
</tbody>
</table>
Preface

ATLAS.ti 9 Quick Tour

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Document version: 1.0.0.182 (13.05.2021 21:29:03)

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Please always update to the latest versions of ATLAS.ti when notified during application start.
ATLAS.ti Account and Licence Activation

For further information on Multi-User License Management, see our Guide for License Holders & Administrators.

Requesting a Trial Version

1. Go to https://my.atlasti.com/ to create an account.
2. Confirm your email address.
3. Request a trial license by clicking on Trial Desktop.

This brings you to the Cleverbridge Website.

1. Enter the required information and download the software.

If you do not want to download the software immediately, you can always do this later in your ATLAS.ti account. To do so, select My Applications.

The trial version can be used for 5 active days by one person on one computer within a period of 3 months.

You can initiate the purchase of a full licence from your ATLAS.ti account. After activating the licence, and the program can be used again at full capacity.

You cannot install a trial version again on the same computer.

Activating a Licence

You need to make an online connection at least once to activate your licence. Once the account is activated, you can work offline and no further online connection is required. Please note, if you are using a seat that is part of a multi-user licence, you will blog the seat if you are offline.

If you have purchased an individual license from the ATLAS.ti web shop, your license has been added to your account. The next step is to activate it.

Similarly, if you are a member of a team of users under a multi-user license, you have received a license key, an invitation code, or invitation link from the person or office that manages the license.
The ATLAS.ti License Management System allocates seats of multi-user license dynamically. This means, you are assigned the first free seat under your license. If all seats are occupied, you will be allocated the next seat that opens up.

- Log in to your ATLAS.ti account.
- Navigate to License Management (the default page) and enter either the license key, or the invite code that you were given by the license owner/license manager.
- Click Activate License.
- Start ATLAS.ti on your computer and click Check For Updated License and follow the on-screen instructions to complete a few easy steps to activate your license.

Your installation is now activated, and you can start using ATLAS.ti.

**Accessing Your Account from within ATLAS.ti**

- On the opening screen, click on the user avatar. If you have not added a picture yet, it will show the first two letters of your account name.
- Click on Manage Account. This takes you to the login screen. Enter your log in information (email and password) to access your account.
Logging Out

It is important to understand that the installation of ATLAS.ti is independent of the licencing of the software. You can have ATLAS.ti installed on as many computers as you want. A single-user licence gives you the right to use it on two computers, e.g. your desktop computer at the office and your laptop at home; or your Windows computer and your Mac computer; or the Cloud version and a desktop version. If you want to use ATLAS.ti on a third computer, or if you get a new computer, make sure you log out at the computer that you do no longer want to use. If you have been invited to use a multi-user license, you will have one seat for the time when using ATLAS.ti.

There are two ways how to log out to free a seat:

1. Click on the user avatar in the welcome screen and click Log Out.

If you forgot to log out in ATLAS.ti, you can always access your user account via a web browser:

2. Go to https://login.atlasti.com/. Enter your email address and password to log in.

3. Select the Log Out option at the bottom left above your avatar in your ATLAS.ti account.

Limited Version after Licence Expiration

Once the trial period or a time limited licence expire, the program is converted into a limited version. You can open, read and review projects, but you can only save projects that do not exceed a certain limit (see below). Thus, you can still use ATLAS.ti as a read-only version.

You cannot install a trial version again on the same computer.

Restrictions of the Limited Version

- 10 primary documents
- 50 quotations
- 25 codes
- 2 memos
- 2 network views
• auto backup is disabled
Introduction

ATLAS.ti is a powerful workbench for the qualitative analysis of large bodies of textual, graphical, audio, and video data. It offers a variety of tools for accomplishing the tasks associated with any systematic approach to unstructured data, i.e., data that cannot be meaningfully analyzed by formal, statistical approaches. In the course of such a qualitative analysis, ATLAS.ti helps you to explore the complex phenomena hidden in your data. For coping with the inherent complexity of the tasks and the data, ATLAS.ti offers a powerful and intuitive environment that keeps you focused on the analyzed materials. It offers tools to manage, extract, compare, explore, and reassemble meaningful pieces from large amounts of data in creative, flexible, yet systematic ways.

The VISE Principle

The main principles of the ATLAS.ti philosophy are best encapsulated by the acronym VISE, which stands for

- Visualization
- Immersion
- Serendipity
- Exploration

Visualization

The visualization component of the program means directly supports the way human beings (this includes researchers!) think, plan, and approach solutions in creative, yet systematic ways.

Tools are available to visualize complex properties and relations between the entities accumulated during the process of eliciting meaning and structure from the analyzed data.

The process is designed to keep the necessary operations close to the data to which they are applied. The visual approach of the interface keeps you focused on the data, and quite often the functions you need are just a few mouse clicks away.
**Immersion**

Another fundamental design aspect of the software is to offer tools that allow you to become fully immersed in your data. No matter where you are in the software, you always have access to the source data. Reading and re-reading your data, viewing them in different ways and writing down your thoughts and ideas while you are doing it, are important aspects of the analytical process. And, it is through this engagement with the data that you develop creative insights.

**Serendipity**

Webster's Dictionary defines serendipity as a **seeming gift for making fortunate discoveries accidentally**. Other meanings are: Fortunate accidents, lucky discoveries. In the context of information systems, one should add: Finding something without having actually searched for it.

The term *serendipity* can be equated with an intuitive approach to data. A typical operation that relies on the serendipity effect is **browsing**. This information-seeking method is a genuinely human activity: When you spend a day in the local library (or on the World Wide Web), you often start with searching for particular books (or key words). But after a short while, you typically find yourself increasingly engaged in browsing through books that were not exactly what you originally had in mind - but that lead to interesting discoveries.
Examples of tools and procedures ATLAS.ti offers for exploiting the concept of serendipity are the Search & Code Tools, the Word Clouds and Lists, the Quotation Reader, the interactive margin area, or the hypertext functionality.

Exploration

Exploration is closely related to the above principles. Through an exploratory, yet systematic approach to your data (as opposed to a mere bureaucratic handling), it is assumed that especially constructive activities like theory building will be of great benefit. The entire program's concept, including the process of getting acquainted with its particular idiosyncrasies, is particularly conducive to an exploratory, discovery-oriented approach.

Areas of Application

ATLAS.ti serves as a powerful utility for qualitative analysis of textual, graphical, audio, and video data. The content or subject matter of these materials is in no way limited to any one particular field of scientific or scholarly investigation.

Its emphasis is on qualitative, rather than quantitative, analysis, i.e., determining the elements that comprise the primary data material and interpreting their meaning. A related term would be "knowledge management," which emphasizes the transformation of data into useful knowledge.

ATLAS.ti can be of great help in any field where this kind of soft data analysis is carried out. While ATLAS.ti was originally designed with the social scientist in mind, it is now being put to use in areas that we had not really anticipated. Such areas include psychology, literature, medicine, software engineering, user experience research, quality control, criminology, administration, text linguistics, stylistics, knowledge elicitation, history, geography, theology, and law, to name just some of the more prominent.

Emerging daily are numerous new fields that can also take full advantage of the program's facilities for working with graphical, audio, and video data. A few examples:

- Anthropology: Micro-gestures, mimics, maps, geographical locations, observations, field notes
- Architecture: Annotated floor plans
- Art / Art History: Detailed interpretative descriptions of paintings or educational explanations of style
- Business Administration: Analysis of interviews, reports, web pages
- Criminology: Analysis of letters, finger prints, photographs, surveillance data
- Geography and Cultural Geography: Analysis of maps, locations
- Graphology: Micro comments to handwriting features.
- Industrial Quality Assurance: Analyzing video taped user-system interaction
- Medicine and health care practice: Analysis of X-ray images, CAT scans, microscope samples, video data of patient care, training of health personal using video data
- Media Studies: Analysis of films, TV shows, online communities
- Tourism: Maps, locations, visitor reviews

Many more applications from a host of academic and professional fields are the reality. The fundamental design objective in creating ATLAS.ti was to develop a tool that effectively supports the human interpreter, particularly in handling relatively large amounts of research material, notes, and associated theories.

Although ATLAS.ti facilitates many of the activities involved in qualitative data analysis and interpretation (particularly selecting, tagging data, and annotating), its purpose is not to fully automate these processes. Automatic interpretation of text cannot succeed in grasping the complexity, lack of explicitness, or contextuality of...
everyday or scientific knowledge. In fact, ATLAS.ti was designed to be more than a single tool---think of it as a professional workbench that provides a broad selection of effective tools for a variety of problems and tasks.
ATLAS.ti -- The Knowledge Workbench

The image of ATLAS.ti as a knowledge workbench is more than just a lively analogy. Analytical work involves tangible elements: research material requires piecework, assembly, reworking, complex layouts, and some special tools. A well-stocked workbench provides you with the necessary instruments to thoroughly analyze and evaluate, search and query your data, to capture, visualize and share your findings.

Some Basic Terms

To understand how ATLAS.ti handles data, visualize your entire project as an intelligent container that keeps track of all your data. This container is your ATLAS.ti project.

The project keeps track of the paths to your source data and stores the codes, code groups, networks, etc. that you develop during your work. Your source data files are copied and stored in a repository. The standard option is for ATLAS.ti to manage the documents for you in its internal database. If you work with larger audio or video files, they can be linked to your project to preserve disk space. All files that you assign to the project (except those externally linked) are copied, i.e., a duplicate is made for ATLAS.ti’s exclusive use. Your original files remain intact and untouched in their original location.

Your source data can consist of text documents (such as interview or focus group transcripts, articles, reports, observational notes); images (photos, screen shots, diagrams), audio recordings (interviews, broadcasts, music), video clips (audiovisual material), PDF files (papers, brochures, reports), also geo data (locative data using Open Street Map).

Once your various documents are added or linked to an ATLAS.ti project, your real work can begin. Most commonly, early project stages involve coding different data sources.

Selecting interesting segments in your data and coding them is the basic activity you engage in when using ATLAS.ti and it is the basis of everything else you will do. In practical terms, coding refers to the process of assigning categories, concepts, or codes to segments of information that are of interest to your research objectives. We have modeled this function to correspond with the time-honored practice of marking (underlining or highlighting) and annotating text passages in a book or other documents.

In its central conceptual underpinnings, ATLAS.ti has drawn deliberately from what might be called the paper and pencil paradigm. The user interface is designed accordingly, and many of its processes are based on---and thus can be better understood by---this analogy.

Because of this highly intuitive design principle, you will quickly come to appreciate the margin area as one of your most central and preferred work space---even though ATLAS.ti almost always offers a variety of ways to accomplish any given task.

General Steps when Working with ATLAS.ti

The following sequence of steps is, of course, not mandatory, but describes a common script:

• Create a project, an idea container, meant to enclose your data, all your findings, codes, memos, and structures under a single name. See Creating a New Project (see the main manual).
Next, add documents, text, graphic, audio and video files, or geo documents to your ATLAS.ti project. See Adding Documents.

• Organize your documents. See Working With Groups (see the main manual).

• Read and select text passages or identify areas in an image or select segments on the time line of an audio or video file that are of further interest, assign key words (codes), and write comments and memos that contain your thinking about the data. Build a coding system. See Working With Comments And Memos (see the main manual), and Working With Codes (see the main manual).

• Compare data segments based on the codes you have assigned; possibly add more data files to the project. See for example Retrieving Coded Data.

• Query the data based on your research questions utilizing the different tools ATLAS.ti provides. The key words to look for are: simple retrieval, complex code retrievals using the Query Tool, simple or complex retrievals in combination with variables via the scope button, applying global filters, the Code Co-occurrence Tools (tree explorer and table), the Code Document Table, data export for further statistical analysis (see Querying Data and Data Export For Further Statistical Analysis (see the main manual)).

• Conceptualize your data further by building networks from the codes and other entities you have created. These networks, together with your codes and memos, form the framework for emerging theory. See Working With Networks.

• Finally, compile a written report based on the memos you have written throughout the various phases of your project and the networks you have created. See Working With Comments And Memos (see the main manual). and Exporting Networks (see the main manual).

For additional reading about working with ATLAS.ti, see The ATLAS.ti Research Blog and The ATLAS.ti conference proceedings.
Main Steps in Working with ATLAS.ti

Data and Project Management

A first important but often neglected aspect of a project is data and project management. The first step is data preparation. You find more information on supported file formats in the section Supported File Formats.

Apart from analyzing your data, you also manage digital content and it is important to know how the software does it. For detailed information, see the section on Project Management (see the main manual).

If you work in a team, please read the following section: Team Work (see the main manual).

Two Principal Modes of Working

There are two principal modes of working with ATLAS.ti, the data level and the conceptual level. The data level includes activities like segmentation of data files; coding text, image, audio, and video passages; and writing comments and memos. The conceptual level focuses on querying data and model-building activities such as linking codes to networks, in addition to writing some more comments and memos.

The figure below illustrates the main steps, starting with the creation of a project, adding documents, identifying interesting things in the data and coding them. Memos and comments can be written at any stage of the process, whereas there is possibly a shift from writing comments to more extensive memo writing during the later stages of the analysis. Once your data is coded, it is ready to be queried using the various analysis tools provided. The insights gained can then be visualized using the ATLAS.ti network function.

Some steps need to be taken in sequence. For instance, logic dictates that you cannot query anything or look for co-occurrences if your data has not yet been coded. But other than that there are no strict rules.
Data Level Work

Data-level activities include Exploring Data (see the main manual), using word clouds and word lists, segmenting the data that you have assigned to a project into quotations (see the main manual), adding comments to respective passages note-making/annotating (see the main manual), linking data segments to each other called hyperlinking (see the main manual) in ATLAS.ti, and coding data segments and memos to facilitate their later retrieval. The act of comparing noteworthy segments leads to a creative conceptualization phase that involves higher-level interpretive work and theory-building.

ATLAS.ti assists you in all of these tasks and provides a comprehensive overview of your work as well as rapid search (see the main manual), retrieval, and browsing functions (see the main manual).

Within ATLAS.ti, initial ideas often find expression through their assignment to a code or memo, to which similar ideas or text selections also become assigned. ATLAS.ti provides the researcher with a highly effective means for quickly retrieving all data selections and notes relevant to one idea.

Conceptual Level Work

Beyond coding and simple data retrieval, ATLAS.ti allows you to query your data in lots of different ways, combining complex code queries with variables, exploring relationships between codes and to visualize your findings using the network tool.

ATLAS.ti allows you to visually connect selected passages, memos, and codes into diagrams that graphically outline complex relations. This feature virtually transforms your text-based work space into a graphical playground where you can construct concepts and theories based on relationships between codes, data segments, or memos.

This process sometimes uncovers other relations in the data that were not obvious before and still allows you the ability to instantly revert to your notes or primary data selection. -- For more detail, see Querying Data and Working With Networks.
Project Management

Opening a Project

To open a project, click on a project on the Welcome Screen (see the main manual), or if a project is already open, and you want to open another one, select Project > Open.

Creating a New Project

If you just started ATLAS.ti,

On the welcome screen click on the button: New Project.
Enter a name for the project and click on Create.
If a project is already open,

- click on Project > New.
- Enter a name for the project and click Create.

**Saving a Project**

To save a project, select **Project > Save** from the main menu or use key combination `command + S`.

The project is saved as internal ATLAS.ti file in the ATLAS.ti library. The default location for the library is the application folder on your computer. See Where Does ATLAS.ti Store Project Data? (see the main manual). It is possible to either change the default location for the ATLAS.ti library or to create new libraries. See About ATLAS.ti Libraries (see the main manual). See the full manual for further detail.

If you want to save an external copy of your project, you need to export it. See below 'Creating a Project Backup'.

**Renaming a Project**

Select **Project > Rename** from the main menu.

**Deleting a Project**

You can delete projects from the opening screen, either when you start ATLAS.ti or by selecting **Project > Open**.
Select a project on the opening screen, right-click on a project and select the option Delete.

You will be asked to confirm the deletion as this is a permanent action that cannot be undone.

Creating a Project Backup

Please export your projects on a regular basis and store the bundle files in a safe location. In case something happens to your computer, you still have a copy of your project to fall back on!

To create a backup of your project, you need to export it and save it as project bundle file on your computer, an external drive, a server or cloud location.
A project bundle file serves as external backup of your project independent of the ATLAS.ti installation on your computer.

- The project bundle file contains all documents that you have added or linked to a project, and the project file that contains all of your coding, the codes, all memos, comments, networks and links. Large audio or video files can be excluded from the bundle.

- Project bundle files are also used to transfer projects between computers. They can be read by both ATLAS.ti Mac and Windows. See Project Transfer (see the main manual).
If your project contains linked documents, they can be excluded when creating a project bundle file. See "Creating Partial Bundles" below.

**Project Transfer**

In order to transfer a project to a different computer, e.g. to share it with team members, you need to export it and create a project bundle file. See above.
Supported File Formats

In principle, most textual, graphical, and multimedia formats are supported by ATLAS.ti. For some formats, their suitability depends on the state of your Windows system. Before deciding to use an exotic data format, you should check if this format is available and if it is sufficiently supported by your Windows system.

Textual Documents

The following file formats are supported:

<table>
<thead>
<tr>
<th>Format</th>
<th>File Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>MS Word</td>
<td>.doc; .docx; .rtf</td>
</tr>
<tr>
<td>Open Office</td>
<td>.odt</td>
</tr>
<tr>
<td>HyperText Markup Language</td>
<td>.htm; .html</td>
</tr>
<tr>
<td>Plain text</td>
<td>.txt</td>
</tr>
<tr>
<td>other</td>
<td>.ooxml</td>
</tr>
</tbody>
</table>

Text documents can be edited in ATLAS.ti. This is useful to correct transcription errors, to change formatting, or to add missing information. When adding an empty text document to an ATLAS.ti project, you can also transcribe your data in ATLAS.ti. We however recommend using a dedicated transcription tool or use automated transcriptions. You can add transcripts with timestamps and synchronize them with the original audio or video file. For this you use Multimedia Transcripts.

Transcripts

You can prepare your own transcripts (see the main manual) in ATLAS.ti, or import transcripts (see the main manual) that have been created elsewhere.

This could mean - you or another person transcribing data for you - have used a specialized transcription software like:

- Easytranscript
- f4 & f5 transcript
- Transcribe
- Inqsribe
- Transana
- ExpressSribe, a.o.;

Another source are transcript prepared automatically by services like Microsoft Teams, Zoom or YouTube in SRT or VTT format. Examples of supported services are:

- MS Teams
- Zoom
For further information on how to import transcripts from these services, see Importing Automated Transcripts in VTT and SRT format (see the main manual).

**PDF files (Text and Graphic)**

PDF files are perfect if you need the original layout. When PDF was invented, its goal was to preserve the same layout for onscreen display and in print.

If the PDF file has annotations, they are displayed in ATLAS.ti. However, they cannot be edited.

When preparing PDFs, you need to pay attention that you prepare a text PDF file and not a graphic PDF. If you do the latter, then ATLAS.ti treats it as a graphic file, and you cannot search it or retrieve text.

When scanning a text from paper, you need to use character recognition software (OCR, frequently provided with your scanner) in order to create a text PDF file. Another option is to apply character recognition in your PDF reader/writer software.

When you retrieve text from a coded PDF segment the output will be rich text. Thus, you may lose the original layout. This is due to the nature of PDF as mentioned above. It is a layout format and not meant for text processing.

**Images**

Supported graphic file formats are: bmp, gif, jpeg, jpg, png, tif and tiff.

**Size recommendation:** Digital cameras and scanners often create images with a resolution that significantly exceeds the resolution of your screen. When preparing a graphic file for use with ATLAS.ti, use image-processing software to reduce the size so that the graphics are comfortably displayed on your computer screen. ATLAS.ti does resize the images if they are too big. But this requires additional computer resources and unnecessarily uses space on your computer hard disk.
To resize and image manually, you can use the zoom function via the mouse wheel or the zoom button in ATLAS.ti.

**Audio- and Video Documents**

Supported audio file formats are: aac, m4a, mp3, mp4.

Supported video file formats are: avi, m4v, mov, mp4.

For audio files, our recommendation is to use *.mp3 files with AAC audio, and for video files *.mp4 file with AAC audio and H.264 video. These can be played both in the Windows and in the Mac version.

As video files can be quite sizable, we recommend to link video files to an ATLAS.ti projects rather than to import them. See Adding Documents for further information.

**Geo Documents**

When you want to work with Geo data, you only need to add a new Geo Document to your ATLAS.ti project. This opens Apple Maps.

To navigate to a specific region or location on the map, enter an address or location name in the search field. For more information, see Working With Geo Docs (see the main manual).

**Survey Data**

The survey import option allows you to import data via an Excel spreadsheet (.xls or .xlsx files). Its main purpose is to support the analysis of open-ended questions. However, this option can also be used for other case-based data that can easily be prepared in form of an Excel table.

In addition to the answers to open-ended questions, data attributes (variables) can also be imported. These will be turned into document groups in ATLAS.ti. For more information, see Working With Survey Data (see the main manual).

**Reference Manager Data**

In order to support doing a Literature Review with ATLAS.ti, you can import articles from reference managers. The requirement is that you are using a reference manager that can export data as Endnote XML file like Endnote, Mendeley, Zotero, or Reference Manager.

If your reference manager cannot export data in Endnote xml format, you can export data in RIS or BIB format and use the free version of Mendeley or Zotero to produce the xml output for ATLAS.ti.

See Working With Reference Manager Data. (see the main manual).
Twitter

You can collect data from Twitter searching for keywords, hashtags, users, etc. ATLAS.ti can collect tweets that are \textbf{not older than one week}!

You need to sign in with your own twitter account to import twitter data to ATLAS.ti. See Working With Twitter Data (see the main manual)....
Adding Documents

What happens when you add documents to a project

All documents that you add to a project are copied, and the copies become internal ATLAS.ti files. This means, strictly speaking, that ATLAS.ti no longer needs the original files. However, we strongly recommend that you keep a backup copy of your original source files.

As audio and video files can be quite sizable, you have the option to create an external reference to the files. This means the multimedia documents remain at their original location and are accessed from there. Preferably, these files should not be moved to a different location. If the files need to be moved, you need to re-link the files to your project. ATLAS.ti will alert you, if there is an issue, and a file can no longer be accessed.

When you add documents to a project, they are stamped with a unique ID. This ID allows ATLAS.ti to detect if documents are the same when merging different projects.

Important Note for Team Projects

When you work in a team and want to work on the same documents, it is important that one person is setting up the project and adds all documents that should be shared. The consequence of not doing is that documents of the same content are duplicated or multiplied during the process of merging projects. See Team Work (see the main manual) for further information.

How to Add Documents

1. From the main menu, select Document > Add Documents... Another option is to open the drop-down menu of the document icon in the toolbar. You can select individual files or folders.

2. If you want to link a video file, select the option Reference External Multimedia Documents. For further information see Adding Multimedia Data (see the main manual).

3. If you want write your own text, e.g. in order to transcribe data, select the option New Text Document. For further information see Preparing your own transcript (see the main manual).
All added or linked documents are numbered consecutively starting with 1, 2, 3 and so on.

The default sort order is by name in alphabetical order. The document order cannot be changed in the Mac version.

Size Restrictions

Theoretically, size restrictions do not play a major role due to the way ATLAS.ti handles documents. However, you should bear in mind that your computer's processing speed and storage capacity may affect the performance.

Excessively large documents can be uncomfortable to work with, even when you have an excellently equipped computer. The crucial issue is not always the file size, but rather, in the case of multimedia files, the length of playing time.

For textual documents, the number and size of embedded objects may cause extraordinarily long load times. There is a high likelihood that if a textual document loads slowly in ATLAS.ti, it would also load slowly in WORD or WordPad.

For very long texts or multimedia files, scrolling to exact positions can be cumbersome.

Please keep those issues in mind when preparing your files.

A Word about "Big Data"

Please keep in mind that the focus of ATLAS.ti is to support qualitative data analysis and to a lesser extent the analysis of qualitative data.

Big data is a buzz word nowadays, and a lot of big data often comes as text or images, hence could be considered qualitative. ATLAS.ti, however, is not suited for true big data analysis, which is not the same as qualitative data analysis.
As point of orientation, coding can be supported using the auto coding feature. However, you still need to read and correct the coding, and most coding in ATLAS.ti is done while the researcher reads the data and creates or selects and applies a code that fits.

A project is too large if you have so much data that you need to rely on a machine to do all the coding for you and you cannot read what has been coded yourself. If this is the case, ATLAS.ti might not be the right tool for you.
Working with Quotations

Interview with Christine Silver, expert in Computer Assisted Qualitative Data Analysis Software).

“When you create a quotation, you’re marking a segment of data that can later be retrieved and reviewed. You might know, right at that point how and why it’s interesting or meaningful, in which case you can immediately capture that – by re-naming it, commenting on it, coding it, linking it to e.g. another quotation, or a memo. If you don’t yet know, you can just create the quotation, and come back and think about it later, perhaps when you have a better overview of the data set in its entirety and are ready to conceptualise meaning in relation to your research objectives.

One of my favourite things about ATLAS.ti is that quotations can be visualised and worked with in a graphical window, i.e. the ATLAS.ti networks. The content of quotations can be seen within the network, and quotations can be linked, commented upon, and coded in that visual space. This is very useful if you like to work visually or are used to analysing qualitative data manually with highlighters, white-boards, post-it notes etc. Networks can also be used as visual interrogation spaces – for example to review quotations which have more than one code attached, which is very powerful. Everything you do in the network is connected throughout the ATLAS.ti project.”

The ATLAS.ti Quotation Level

The ATLAS.ti quotation level gives you an extra layer of analysis. In ATLAS.ti you are not required to immediately code your data as in most other CAQDAS software. You can first go through your data and set quotations, summarize the quotations in the quotation name and write an interpretation in the comment field. See Working with Quotations (see the main manual).. This is useful for many interpretive analysis approach for the process of developing concepts. Once you have ideas for concepts you can begin to code your idea.

This prevents you from falling into the coding trap, i.e. generating too many codes. Codes that can be applied to only one or two segments in your data are not very useful. Code names should be sufficiently abstract so that you can apply them to more than just a few quotations.

You will also see later in the analysis process that you find that none of the further analysis tools like the Code Document Table (see the main manual). or the Code Co-occurrence Table (see the main manual). seem to be very useful.

If you find yourself generating 1000 or more codes, take a look what you can do with quotations instead (see the main manual). Based on that develop codes on a more abstract level allowing you to build a well rounded code system.

Creating Quotations in Text Documents

When you code data, quotations are created automatically. See Coding Data (see the main manual). You can however also create quotations without coding. To do so:
Highlight a section in your text, right click and select the option Create Quotation. Alternatively, you can also use the shortcut cmd+H.

Once a quotation is created, you see a blue bar in the margin area and an entry in the Quotation Manager and the Document tree in the Project Explorer.

**Modifying Quotation Boundaries**

Modifying the length of a quotation is easy.

If you select a quotation, e.g. by clicking on the bar in the margin area, you see a blue line with a dot at the beginning and at the end of the quotation. Move the start or end position to a different location depending on whether you want to shorten or lengthen the quotation. This applies to all media types.

STU: Er I’ll use one that’s probably my er best friend I suppose, I was er, I was working as a fitness instructor for the council and he was a, he was a customer, he used to come in like every day, so we just er, this is about, this is about twelve years ago, and then er we just got to know each other and like he came on like a few of the staff nights out and then er we’re still friend now and that, although I’m not a fitness instructor cos I got ill and you know, you know, but we just stayed friends, so we’re still really good friends, although he lives in Runcorn now and I still live in Liverpool, we always talk to each other on the phone and see each other like once a month, twice a month for a night out or …
Quotation ID and Reference

Each quotation has an ID, which consists of two numbers:

The ID 2:15 for example means that the quotation comes from document 2, and it is the 15th quotation that was created in this document. It is located in the 10th paragraph. Quotation 6:1 comes from document 6; it is the first quotation created in document 6 and can be found in paragraph 67-71.

Quotations are numbered in chronological and not in sequential order. If you want to change this order, see Working with Quotations (see the main manual).

Adding Quotation Names and Writing Comments

Being able to name each quotation has a number of useful applications.

- It allows you to quickly glance through your quotations in list view.
- You can use the name field to paraphrase a quotation as required by some content analysis approaches, or to write a short summary.
- You can use the name field for fine-grained coding (line-by-line Grounded Theory coding; initial coding in Constructive Grounded Theory, or as required by other interpretative approaches) instead of applying codes. If you already apply codes during this phase, you will end up with too many codes that are useless for further analysis. See Building a Code System.
- Adding titles to multimedia quotations. See Working with Multimedia Data (see the main manual).
To add a name to a quotation, select it and left-click the name field, or add a text to the name field in the inspector on the right-hand side. You can write further information about the quotation like a summary or interpretation in the comment field that you also find in the inspector.

If you select a quotation in the Quotation Manager, you see a preview of the quotation in the panel below the quotation list. This applies to all data file formats.

STU: Er I'll use one that's probably my er best friend I suppose, I was er, I was working as a fitness instructor for the council and he was a, he was a customer, he used to come in like every day, so we just er, this is about, this is about twelve years ago, and then er we just got to know each other and like he came on like a few of the staff nights out and then er we're still friend now and that, although I'm not a fitness instructor cos I got ill and you know, you know, but we just stayed friends, so we're still really good friends, although he lives in Runcorn now and I still live in Liverpool, we always talk to each other on the phone and see each other like once a month, twice a month for a night out or...

INT: Ok, and does he tend to go over to or do you tend to go to Runcorn?

STU: Er if we go for a night out he tends to come over here and he'll stay in mine, but because he lives like in the middle of nowhere we tend to go over and it'll be like house party or a barbecue so we'll stay over there, but if we're having a night out he'll come over here cos he prefers like Liverpool cos it's where we always used to go out when we were younger anyway.
Coding Data

“Coding means that we attach labels to segments of data that depict what each segment is about. Through coding, we raise analytic questions about our data from [...]. Coding distills data, sorts them, and gives us an analytic handle for making comparisons with other segments of data” (Charmaz, 2014:4).

“Coding is the strategy that moves data from diffuse and messy text to organized ideas about what is going on” (Richards and Morse, 2013:167).

“Coding is a core function in ATLAS.ti that lets you “tell” the software where the interesting things are in your data. ... the main goal of categorizing your data is to tag things to define or organize them. In the process of categorization, we compare data segments and look for similarities. All similar elements can be grouped under the same name. By naming something, we conceptualize and frame it at the same time” (Friese, 2019).

Creating New Codes without Coding

You can create codes that have not (yet) been used for coding. Such codes are called “free” codes. This can for example be useful when ideas for codes come to mind during normal coding work and that cannot be applied to the current segment but will be useful later. Sometimes you also need free codes for expression conceptual connections in networks. If you already have a list of codes, possibly including code descriptions and groupings elsewhere, you can use the option: Importing A List Of Codes (see the main manual).

Click on the Code button in the toolbar and select New Code(s) from the drop-down menu. The short-cut key combination is Cmd+K.

You can also create new codes in the Code Manager by clicking on the + button.

Coding with a New Code

Open a document and highlight a data segment, i.e. a piece of text, a rectangular area in a graphic document, a section on the audio wave of a video or audio document, or a location in a geo document.
Right-click and select Apply Codes, or use the short-cut Cmd+J, or click on the 'Apply Codes' button in the toolbar.

Enter a name and click on the plus button or press enter.

You can continue to add more codes, or simply continue to select another data segment. The dialogue closes automatically.

Parenting blog – Blog by Lisa Belkin discussing the study by Powdthavee

April 1, 2009, 4:06 pm

Does Having Children Make You Unhappy?

By LISA BELKIN

Children do not bring happiness. In fact more often they bring unhappiness. That is the conclusion of one academic study after the next — and there are so many that it makes one wonder if researchers kept trying, hoping for a different result.

In the April edition of the online Journal of the British Psychological Association, researcher Nattavudh Powdthavee, of the University of York in Great Britain (whose own academic work concludes that there is no difference between the life satisfaction levels of parents and non-parents) summarizes the existing studies:

Using data sets from Europe and America, numerous scholars have found some evidence that, on aggregate, parents often report statistically significantly lower levels of happiness (Almeida et al., 2004), life satisfaction (Di Tella et al., 2003), marital satisfaction (Wenye et al., 2003) and mental well-being (Clark & Oswald, 2002) compared with non-parents.

And it is not just the years of active parenting that tamp down happiness, Powdthavee writes:

There is also evidence that the strains associated with parenthood are not only limited to the period during which children are physically and economically dependent. For example, Glenn and McLanahan (1991) found that older parents whose children have left home report the same or slightly less happiness than non-parents of similar age and status. Thus, what these results are suggesting is something very controversial — that having children does not bring joy to our lives.

Which leads to the seminal question — why does anyone have children in the first place? If, statistically and on average, parents are no happier, and many are less happy, than those without children, then what are all these baby showers about?

Is it because we see others struggle, but we figure it won’t be as much of a struggle for us? Because we focus on the upside — the new and the smiling and the little chubbie cheeks? Powdthavee believes we do “dubbed”

for more information on working with data other than text, see Working With Multimedia Data (see the main manual). and Working With Geo Docs (see the main manual).

Display of Coded Data Segments in the Margin Area

The coded segment is displayed in the margin area. A blue bar marks the size of the coded segment (= quotation), and the code name appears next to it. When coding data in this way, a new quotation is created automatically, and the code is linked to this quotation.

Applying Existing Codes

Existing codes can be applied using the Coding Dialogue or via Drag & Drop.

Using the Coding Dialogue

Highlight a data segment, right-click and select Apply Codes.
Select one of the existing codes, click on the plus button or press Enter. If you type the first few letters in the entry field, only those codes are presented that match the letter combination.

Code density is not a value that is calculated by the software. It goes up, when the researcher begins to link codes to each other. See Working With Networks.

**Drag-and-Drop Coding**

Drag-and-Drop Coding is possible from the following locations:

- the Codes branch from the **Project Explorer**
- the **Code Browser** in the navigation panel.
- the **Code Manager**

Below you find More Drag-and-Drop options.

To use drag-and-drop coding highlight a data segment, select one or more codes in the above mentioned lists or windows and drag the code onto the highlighted data segment.

**Code Browser in the navigation panel:** To open the Code Browser, click on the **Codes** icon. The search field in the Code Browser facilitates handling a longer code list. Rather than scrolling the list, you enter the first letters of a code.

**Code Manager:** When using the Code Manager, it is recommend to place it next to the text you are coding. If you click on the pin on the top right-hand side of the window, the Code Manager stays on top.

You can quickly access codes using code groups to filter the list, or using the search field.

**Apply Last Used Codes**

Applying the last used code(s) to the current data segment is an efficient method for the consecutive coding of segments.
Highlight a data segment or click on an existing quotation.

Right click and select Add Last Used Codes from the context menu.

**Keyboard Shortcuts For Coding**

<table>
<thead>
<tr>
<th>Coding</th>
<th>Short-Cut</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create Free Code</td>
<td>Cmd+K</td>
</tr>
<tr>
<td>Apply Codes</td>
<td>Cmd+j</td>
</tr>
<tr>
<td>Apply Last Used Codes</td>
<td>Cmd+l</td>
</tr>
<tr>
<td>Code In Vivo</td>
<td>Shift+Cmd+V</td>
</tr>
</tbody>
</table>

**Working with Codes**

**Modifying the Length of a Coded Segment**

Select the quotation by clicking on the quotation bar or code in the margin area and move the handle in form of a blue line and dot to the right, to the left, or up or down, depending on whether you want to shorten or lengthen the quotation.

**April 1, 2009, 4:06 pm**

**Does Having Children Make You Unhappy?**

By LISA BELKIN

Children do not bring happiness. In fact more often they seem to bring unhappiness. That is the conclusion of one academic study after the next — and there are so many that it makes one wonder if researchers kept trying, hoping for a different result.

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**Removing a Coding**

This option is the reverse function of coding. It removes the links between codes and quotations. Unlike the delete function, neither codes nor quotations are removed; only the association between the code and the quotation is removed.

**Margin Area**

Right-click on the code in the margin area and select the option Unlink from the context menu.

**Coding Dialogue**
Double-click on quotation in the margin area. This opens the Coding Dialogue. Click on **Applied Codes** to quickly see which codes have been applied to the quotation. Click on the button with the minus (-) to remove a code.

**Replacing a Code via Drag & Drop**

If you want to replace a code that is linked to a data segment, you can drag and drop another code from either the Project Explorer, Code Browser, or the Code Manager on top of it. When you drop it on top of another code, select the second option from the context menu: Replace ... with ...

**Adding, Changing and Removing Code Color**

To change the code color, select a code and click on the circle next to the word ‘color’ in the inspector. Another option is to right-click on a code in the Project Explorer, Code Browser, Code Manager, or in a Network and select the option **Change Color** from the context menu.

**Renaming a Code**

You can left-click on a code anywhere to rename a code in in-place edit mode. Another option is to rename the code in the inspector.

**Deleting One or Multiple Code(s)**

In the Project Explorer, the Code Browser, or Code Manager, right-click on a code and select **Delete**.
Writing Code Comments

Code comments can be used for various types of purposes. The most common usage is to use them for a code definition. If you work in teams, you may also want to add a coding rule, or an example quote. If you work inductively, you can use code comments to write down first ideas of how you want to apply this code. You can also use it to write up summaries of all segments coded with this code and your interpretation about it. There are several ways to write a code comment.

- If you select a code anywhere, you can write a code comment in the inspector.
- In the margin area, you can double-click on a code to open the comment editor. Another option is to right-click on a code and select the Edit Comment option from the context menu.

All codes that have a comment shows a little yellow flag.

Creating a Code Book

The recommended option to create a code book is to use the Excel export:

Open the Code Manager, select all codes (e.g. Cmd+A), click on the Export button and select Export as Spreadsheet.
ATLAS.ti exports are columns that are visible in the Code Manager. If you click on a column header, you can deselect columns that you do not want to export.

**Merging Codes**

You may begin your coding very close to the data generating lots of codes. In order not to drown in a long list of codes, you need to aggregate those codes from time to time, which means merging and renaming them to reflect the higher abstract level. Another reason for merging is that you realize that two codes have the same meaning, but you have used different labels.

Select two or more codes in the Code Manager and drag them to the code where you want to merge them into. A menu opens. Select the first option Merge code ... into ...

A comment is automatically inserted into the target code that provides an audit trail of which codes have been merged. If the codes that are merged had a comment, these comments are also added to the target code.

**Splitting a Code**

Splitting a code is necessary if you have been lumping together many quotations under a broad theme. This is a suitable approach for a first run through to get an idea about your data. At some point, however, those codes need to be split up into smaller sub codes.

Right-click a code that you want to split in the Code Manager or Project Explorer and select Split Code from the context menu.

In the Split Code tool, you see the list of the quotations coded with the code.

Click on the button Add Codes. Enter as many sub codes as you need. ATLAS.ti automatically creates a prefix that consists of the name of the code you split followed by a colon (:). After adding all sub codes that you need, click Add.

You can now assign the quotations to one or more sub codes. When you select a quotation, its content is shown below the list of quotation. Assign the quotations by clicking on the checkbox of the sub codes that apply. The quotation is automatically unlinked from the main code that you are splitting.
After you have distributed some or all of the quotations into sub codes, click on Split Code. Now the sub codes are created, and the quotations are assigned accordingly.

It is not required that you assign all quotations to sub codes. If you are not sure what to do with a quotation, you can leave it coded with the main code and split it later.

It is recommended not to double-code with the main, and the sub code. It takes up unnecessary space in the margin area. Instead, create a code group of all codes that share the same prefix. This way, you can access all data of this category by using the code group as filter.
Mutually Exclusive Coding

If you do not want to allow that a quotation is coded with two of the sub codes, activate the option Mutually Exclusive. This is a requirement for some content analysis approaches and for calculating inter-coder agreement. See Requirements for Coding (see the main manual).

Options

- **Copy Comments**: Select if you want all sub codes to have the same comment as the code you split.
- **Copy links**: Select if you want all sub codes to inherit existing links to other codes or memos.
- **Mutually exclusive**: If activated, you can assign a quotation to only one sub code. This is a requirement for some content analysis approaches and for calculating inter-coder agreement.

Building a Code System

A well-structured code list is important for further analysis, where you look for relationships and patterns in the data, with the goal of integrating all results to tell a coherent story. If, as in a survey, you only have questions with the answer categories "yes" and "no" in your questionnaire, your data will only consist of nominal variables. This means that the analysis is limited and does not go beyond the descriptive level. This is like a code list that consists of a set of codes whose analysis level remains indefinite.

Benefits of a well-structured code list

- it creates order
- it brings conceptual clarity for yourself and others
- it provides a prompt to code additional aspects as you continue to code
- it will assist you in identifying patterns

Characteristics of a well-structured code list

- Each code is distinct, its meaning is different from the meaning of any other code.
- The meaning of each code is described in the code comment.
- Each category can be clearly distinguished from other categories.
- All sub codes that belong to a category are similar as they represent the same kind of thing. Nonetheless, each sub code within a category is distinct.
- Each code appears only once in the code system.
- The code system is a-theoretical. This means the code system itself does not represent a model nor a theory. The codes merely describe the data, so that the data can easily be accessed through them.
- The code system should be logical, so you can find what you are looking for.
- The code system contains between 10 and 25 top-level categories.
- The code system has no more than two to three levels. Thus, it consists of categories and sub codes, and possible a dimension like positive / negative, or a time indicator like before / during / after. If dimensions apply to many codes in the code system, it is better to create separate codes and double-code the data with the content code plus the dimension.
How to Begin Building a Code System

The aim of building a code system is that you can access your data through the codes and that you can make full use of the analysis tools. For example, knowing you can cross-tabulate codes with the code co-occurrence table, helps to understand why it is important to either apply multiple codes from various categories to a quotation, or to code in an overlapping fashion.

You start by creating codes to catch ideas, the list of code grows. You then begin to sort and order codes into categories and sub codes making use of the merge and split functions. It is recommended to develop categories that contain only one level of sub categories (two if necessary), so you can flexibly combine the different aspects when querying the data and to avoid unnecessary long code lists and code labels.

You will find that you have different types and levels of codes. Structural codes that code speaker units in focus groups; attribute codes that code socio-demographic attributes of speakers or persons within a document; codes that indicate a category and codes that are sub codes of a category, and so on. As there is only one entity for all of these different things - the code - you can indicate different types and levels using the code label. The table below proposes a syntax that you can use as guideline:

Syntax for Different Types and Levels of Codes

<table>
<thead>
<tr>
<th>What</th>
<th>Syntax for Code Label</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial concept</td>
<td>Lower case</td>
<td>personal growth</td>
</tr>
<tr>
<td>Category</td>
<td>UPPER CASE, colored</td>
<td>EFFECT</td>
</tr>
<tr>
<td>Sub code</td>
<td>Lower case, same as category color</td>
<td>Effects pos: personal growth</td>
</tr>
<tr>
<td>Concept that does not fit any category</td>
<td>asterisk (*) label in lower case</td>
<td>*scientific evidence</td>
</tr>
<tr>
<td>Dimension</td>
<td>Lower case + special character, coloured</td>
<td>/time: during</td>
</tr>
<tr>
<td>Socio-demographics</td>
<td>prefixed with #</td>
<td>#gender: female</td>
</tr>
<tr>
<td>speaker units</td>
<td>prefixed with @</td>
<td>@Tom</td>
</tr>
</tbody>
</table>

Example

# gender: female

# gender: male

@Tom

@María

@Clara

/time: before

/time: during

/time: after

*single code 1

*single code 2
You see that the prefixes divide your code system into different sections. This helps you to keep organized and to quickly find what you are looking for. It also allows you to flexibly combine the codes of the different categories or categories with speakers, attributes and dimensions when querying the data.

If you have interview data, instead of attribute codes, you use document groups (see the main manual) to sort documents by attributes like gender, age, family status and the like.

Organize your code structure based on conceptual similarities, not observed or theoretical associations, nor according to how you think you will want to write the result chapters, or the possible role they play in any emerging theory.

Use a separate code for each element of what the text is about, i.e. each code should encompass one concept only. If there are multiple aspects, the passage can be coded with multiple codes.

Don't worry if not all of your codes can be sorted into a category. Some codes will remain single codes. In order not to "loose" them in the categories, use a special prefix, so they show up in their own section in the code system.

The Role of Code Groups in Building a Code System

Users are often tempted to use code groups as higher order categories. This defeats the purpose somehow. Code groups are filters and codes can be assigned to multiple code groups. A code of one category can however only belong to one and not to multiple categories. This is why code groups do not serve well as higher order codes. If you want to build categories and sub codes, the recommendation is using the above suggested syntax instead. Indicate a category by using capital letters.
If you have a lot of low frequency codes that you want or need to merge, then code groups are a good way to collect them. After you have added all low level codes that belong to the same theme / topic / idea, you can set this code group as filter. This makes it easier to merge the codes. You can then add prefixes, and the category code in capital letters.

Once you have developed categories with sub codes, you can create a code group for each category for the purpose of using it as filter. Code groups will allow you to filter by categories, and for further analysis, you can use the code groups to analyse on the category level rather than the sub code level.

**Moving on**

Once the data is coded, you have a good overview of your material and can describe it. You can then take the analysis a step further by querying the data. The tools that can be used include the code co-occurrence table (see the main manual), the code document table (see the main manual), the query tool (see the main manual), and the networks (see the main manual).

The goal is to delve deeper into the data and find relationships and patterns. Writing memos (see the main manual) is very important at this stage as much of the analysis does not just happen because you apply a tool. The insights come when reading the data resulting from a query (see the main manual), and when writing summaries and interpretations.

**Literature**

The recommendations in this section are based on the following authors:


**Retrieving Coded Data**

**In the Code Manager**

Open the Code Manager and double-click a code. This open the Quotation Reader (see the main manual), and you can review all codings.

**Simple Retrieval in the Margin Area**

If you double-click on a code in the margin area, the comment field opens. From there you can access the quotations coded with the code.
Simple AND and OR Queries in The Quotation Manager

Open the Quotation Manager.

Select a code in the filter area. The list of quotations only shows the quotations of the selected code. If you click on a quotation, it will be shown in the preview area. If you double-click, the quotation will be shown in the context of the document.

The yellow bar on top shows the code(s) you are using as filter.

When selecting two or more codes in the side panel, the filter is extended to an OR query - Filter quotations, which are coded with any of the codes.....

Click on the box with the any operator. This opens a drop-down, and you can change between ANY and ALL.

- **ANY**: Show all quotations linked to any of the selected codes.
- **ALL**: Show quotations where all the selected codes apply. This means that two or more codes have been applied to the exact same quotation.

If you want to export the results, click on either the Report or Excel Export button in the ribbon. Find more detail see Creating Reports (see the main manual).

Working with Memos and Comments

Memos

- "Memos and diagrams are more than just repositories of thoughts. They are working and living documents. When an analyst sits down to write a memo or do a diagram, a certain degree of analysis occurs. The very act of writing memos and doing diagrams forces the analyst to think about the data. And it is in thinking that analysis occurs" (Corbin & Strauss: 118).

- "Writing is thinking. It is natural to believe that you need to be clear in your mind what you are trying to express first before you can write it down. However, most of the time, the opposite is true. You may think you have a clear idea, but it is only when you write it down that you can be certain that you do (or sadly, sometimes, that you do not)" (Gibbs, 2005).

As you see from the above quotes, memos is an important task in every phase of the qualitative analysis process. Much of the analysis 'happens' when you write down your findings, not by clicking buttons in the software.

The ideas captured in memos are often the pieces of a puzzle that are later put together in the phase of report writing.

**Theory-building**, often associated with building networks, also involves writing memos.
Memos in ATLAS.ti can be just a text on its own, or can be linked to other entities like quotations, codes, or other memos.

### Typical Usage of Memos

- **Memos can contain a project description**

- **You can list all research questions** in a memo.

- **You can use memos to write a research diary.**

- **You can use one memo as to do list.**

- **Memos can be used as a bulletin board** to exchange information between team members.

- **You can store definitions, findings or theories from relevant literature** in one or more memos.

- **You can write up your analysis** using memos. Those memos will be the building blocks for your research report.

Memos can also be assigned as documents, if you want to code them. See Using Memos as Document (see the main manual).
Differences between Memos and Comments

From a methodological point of view, comments are also memos. Comments are also places for thinking and writing.

In technical terms, in ATLAS.ti there is a distinction between comments and memos, as comments exclusively belong to one entity. For example, the document comment is part of the document; a code comment belongs to a particular code and is usually a definition for this code. A quotation comment contains notes or interpretations about the quotation it belongs to.

Comments are not displayed in browsers separately from the entity to which they are attached.

ATLAS.ti memos in comparison

• can be free-standing, or they can be linked to other entities.
• You can write a comment for a memo, for example: use this memo for section 2 in chapter 4 in my thesis.

Typical Usage of Comments

Below some ideas are listed for what you can use comments:

Project comment

• project description

Document comment

• Meta information about a document: source, where and how you found or generated it
• Interview protocols

Information about a respondent like gender, age, profession etc., are best handled by document groups. There is no need to write this type of information into the comment field.

Quotation Comment

• interpretations that only concern a specific data segment
• ideas how a quotation might be related to another quotation
• summaries for what you hear or see in the multimedia quotation
• interpretations of image quotations
• notes on a geo position

Code Comment

• first ideas what you mean by a code
• a code definition
• a coding rule, especially when working in a team
• an example of what kind of data can be coded with this code
• summary of coded segments
Memo Comment

- note to yourself where you want to use the memo in a report
- comments from supervisors or team members
- links to or notes about relevant literature

Network Comment

- description of the network
- idea how you want to develop it further

Link Comment

- Explaining why the two entities are linked in a specific way.

Writing a Comment

You find a field for writing comments in every Entity Manager (see the main manual).

To write a comment, select an item and type something in to the comment field in the inspector. As soon as you select another item, the comment is automatically saved.

All items that have a comment display a yellow post-it within their icon.

Alternatively, you can right-click on any entity and select the Edit Comment option from the context menu and write a comment for the selected entity.

Creating Memos

Memos can be created from the toolbar, or in the Memo Manager.

To create a memo from the toolbar:

Click the drop-down menu for Memos and select New Memo. A new memo opens immediately, and you can change the default name in the inspector.

To create a memo in the Memo Manager:

From the main menu select Memo > Show Memo Manager.

In the Memo Manager, click on the plus. A new memo is created in the list, and you can enter a title. You can begin to write your memo in the editor in the lower part of the Memo Manager.
Opening an Existing Memo

You can access memos from everywhere: the Project Explorer, the Memo Manager, in the margin area if you linked a memo to a quotation, or from within a network.

If you want to review or continue to work on a memo, just double-click the memo. In the Memo Manager, you can select a memo with a single click and review and edit it in the lower part of the manager window.

Memos can be linked to quotations, codes and other memos. You can link memos per drag & drop basically anywhere in the program, or visually in networks. See Linking Nodes. Below a few examples are given.

References


Gibbs, Graham (2005). Writing as analysis. Online QDA.
Querying Data

ATLAS.ti offers several tools that support you in querying your data:

**Simple Boolean Retrieval.**

See Retrieving Coded Data.

**Code Document Table**

The Code Document Table is a cross-tabulation of codes or code groups by documents or document groups. It shows how often a code (codes of a code group) has (have) been applied to a document or document group. See Code Document Table. (see the main manual).

**Co-occurrence Analysis**

Use the Code Co-occurrence Explorer to explore coded data to get a quick overview where there might be interesting overlaps. If you are looking for specific co-occurrences and for accessing the quotations of co-occurring codes, the Code Co-occurrence Table is the better choice. See Code Co-Occurrence Tools. (see the main manual).

**The Query Tool**

The Query Tool finds quotations based on a combination of codes using Boolean, Proximity or Semantic operators. Example: Show me all quotations where both Code A and Code B have been applied.

Such queries can also be combined with variables in form of documents or document groups. This means that you can restrict a query to parts of your data like: Show me all quotations where both Code A and Code B have been applied, but only for female respondents between the age of 21 and 30. See The Query Tool. (see the main manual).

**Smart Codes**

Smart Codes are stored queries. They can be reused and always reflect the current state of coding, e.g. after more coding has been done or after coding has been modified. They can also be used as part of other query, thus, you can build complex queries step by step. See Working With Smart Codes. (see the main manual).
Smart Groups

Like smart codes, smart groups are stored queries based on groups. The purpose is to create groups on an aggregate level. For instance, if you have groups for gender, age and location, you can create smart groups that reflect a combination of these like all females from age group 1 living in city X. See Working With Smart Groups. (see the main manual).

Global Filters

Global filters allow you to restrict searches across the entire project. If you set a document group as global filter, the results in the Codes-Document or Code Co-occurrence Table will be calculated based on the data in the filter and not for the entire project. Global filters effect all tools, windows, and networks. See Applying Global Filters For Data Analysis. (see the main manual).

Code-Document Table

You can use the Code Document Table for within and across documents or group comparisons by relating codes or code groups and documents or document groups to each other.

The table cells contain:

- **frequency count** of the number of codings. This can be different from the number of quotations, if a quotation is coded by multiple codes. Counted is each link between a code and a quotation.
- **word count** of the quotations coded by the selected code or code group.

Running an Analysis in the Code Document Table

From the main menu select Analysis > Code-Document Table.

Select codes or code groups for the table rows; and select documents or document groups for the table columns.

**How to make selections**: To select an item, you need to click the check-box in front of it. It is also possible to select multiple items via the standard selection techniques using the cmd or shift-key. After highlighting multiple items, push the space bar to activate the check boxes of all selected items.

**How to read the table**

By default, the codes / code groups are displayed in the left column, and the documents / document groups in the top row.
Left column

- Next to each code, the number indicates how often the code is applied in the entire project.
- Next to a code group, you see two numbers: The first one tells you how many codes are in the group, the second numbers gives you the number of codings. This is different from the number of quotations, as multiple codes from the same code group could be linked to the same quotation.

Top row

- Below a document, you see the total number of quotations in each document.
- Below a document group, you see two numbers: the first one tells you how many documents are in the document group, and the second number gives you the number of quotations for all documents in the group.

The additional information you get for each selected row or column item allows you to better evaluate the numbers inside the table cells. If the value in the table cell is 10, but the code overall was applied 100 times, this leads to a different interpretation as if the code was only applied 12 times in the entire project.

Table cells

- The results in the table cells show how often each selected code was (or the codes of a code group were) applied in each document or document group. Counted are the number of codings, unless you select to count words (see options).
- If you click on a cell in the table, the quotation content is shown in the Quotation Reader (see the main manual). on the left-hand side.
- the table cells are colored to reflect the frequency. The darker the color, the higher the frequency.

Code-Document Table Toolbar

- Compress: This is a quick way to remove all rows or columns that only show empty cells. This is the same as manually deactivating codes or documents that yield no results. Thus, you cannot decompress a table.
- Table / Sankey: You can switch between table view, and a visualization of the selected data in form of a Sankey diagram (see the main manual).
- Options: See full manual. (see the main manual).
- Export: You can export the table as Excel spreadsheet, and the Sankey diagram as image in pgn format.

Sankey Diagram

As soon as you create a table, a Sankey diagram will be shown in the area below the table. The Sankey diagram is an alternative view complementing the original table view.
The basic table data model of rows and column entities is represented in the Sankey model as nodes and edges, the strength of co-occurrence between pairs of nodes. The Code Document table uses codes, code groups, documents and document groups.

For each table cell containing a value, an edge is displayed between the diagram nodes. The thickness of the edges resemble the cell values of the table. Cells with value 0 are not displayed in a Sankey view.

### The Code Co-Occurrence Table

The Co-occurrence Table in comparison to the Explorer shows the frequencies of co-occurrence in form of a matrix similar to a correlation matrix that you may know from statistical software.

To open the tool, select Analysis > Code Co-occurrence Table.

Next you need to select the codes that you want to relate to each other:

Select codes from the first list for the table columns, and codes from the second list for the table rows. To select an item, you need to click the check-box in front of it. It is also possible to select multiple items via the standard selection techniques using the cmd or shift-key. After highlighting multiple items, push the space bar to activate the check boxes of all selected items.

**How to read the table**

**First column / first row:** The number below and behind each code shows how often the code is applied in the entire project. This helps you to better evaluate the number of co-occurrences in the table cells.

**The number in the cell** indicates the number of hits, how often the two code co-occur. This means that the number of co-occurring „events” and not the number of quotations are counted. If a single quotation is coded by two codes or if two overlapping quotations are coded by two codes, this counts in both cases as a single co-occurrence.

**Retrieving the qualitative data:** If you click on a cell, the quotations of the corresponding row and column codes are displayed next to the table in the Quotation Reader (see the main manual).

The quotation reader always displays two lists of quotations: the quotations of the column code, and the quotations of the row code.

### Code Co-Occurrence Table Toolbar

**Compress:** This is a quick way to remove all rows or columns that only show empty cells. This is the same as manually deactivating codes that yield no results. Thus, you cannot decompress a table!

**Table / Sankey:** You can switch between table view, and a visualization of the selected data in form of a Sankey diagram (see the main manual). 

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ATLAS.ti Networks

Visualization can be a key element in discovering connections between concepts, interpreting your findings, and effectively communicating your results. Networks in ATLAS.ti allow you to accomplish all three of these important objectives. These small segments of your larger web of analysis are modeled using the network editor, an intuitive work space we also like to think is easy on the eye.

The word network is a ubiquitous and powerful metaphor found in many fields of research and application. Flow charts in project planning, text graphs in hypertext systems, cognitive models of memory and knowledge representation (semantic networks) are all networks that serve to represent complex information by intuitively accessible graphic means. One of the most attractive properties of graphs is their intuitive graphical presentation, mostly in form of two-dimensional layouts of labeled nodes and links.

In contrast with linear, sequential representations (e.g., text), presentations of knowledge in networks resemble more closely the way human memory and thought is structured. Cognitive "load" in handling complex relationships is reduced with the aid of spatial representation techniques. ATLAS.ti uses networks to help represent and explore conceptual structures. Networks add a heuristic "right brain" approach to qualitative analysis.

The user can manipulate and display almost all entities of a project as nodes in a network: quotations, codes, code group, memos, memo groups, other networks, documents, document groups and all smart entities.

If you are interested in learning more about network theory and how it is applied in ATLAS.ti, you can watch the following video: Did you ever wonder what's behind the ATLAS.ti network function.

Basic Network Procedures

Two methods for creating networks are available. The first one creates an empty network, and you begin to add entities as sequential steps. The other method creates a network from a selected entity and its neighbors.

Creating a New Network

Open the drop-down menu for Networks in the toolbar, and select New Network. The network opens immediately in the main space. It is recommend to change the default name in the inspector.

Another option is to open the Network Manager and to create a new network there by clicking on the plus button.

Adding Nodes to a Network

You can add nodes via the Add Nodes button in the toolbar, or via drag-and-drop.

Adding Nodes Using the Selection List

Click on the Add Nodes button in the toolbar.
This opens a selection list that is docked to the left-hand side of the network. At the bottom of the selection list you see a preview if one is available for the selected entity.

Select the entity type and then the entities that you want to add to the network. Double-click to add the entity to a network; or drag-and-drop the selected entities to the network; or click on the Add button.

Adding Nodes via Drag & Drop

You can add nodes by dragging entities into the network editor from entity managers, group managers, the margin, the project explorer, or any of the browsers.

Open a network and position it for example next to the Project Explorer.

Select the node(s) you want to import into the network and drag-and-drop them into the editor.

Selecting Nodes

Selecting nodes is an important first step for all subsequent operations targeted at individual entities within a network.

Selecting a Single Node

Move the mouse pointer over the node and left-click.

All previously selected nodes are deselected.

Selecting Multiple Nodes

Method 1

Hold down the cmd key on your keyboard, move the mouse pointer over the node and left click. Repeat this for every node you want to select.

Method 2

This method is very efficient if the nodes you want to select fit into an imaginary rectangle.

Move the mouse pointer above and left to one of the nodes to be selected. Hold down the left mouse button and drag the mouse pointer down and right to cover all nodes to be selected with the selection marquee. Release the mouse button.
Linking Nodes and Entities

Select one or more nodes. A dot appears in the top left corner of the node(s). Click on the dot with the left mouse button and drag the mouse pointer to the node that you want to link. In case you have highlighted more than one node, you need to select the dot of one of the nodes.

Release the left mouse button on top of the node. If you link codes to codes or quotations to quotations, a list of relation opens. Select a relation.

The two nodes are now linked to each other. In case you linked two codes or two quotations to each other, the relation name is displayed above the line.

If none of the existing relations is suitable, select Create Relation and create a new relation (see the main manual). The new relation will immediately be applied to the link.

Editing a Link

Click on a link. If the link has a relation, click on the relation as this makes it easier to select it. A selected link is displayed in blue.

Right-click and open the context menu.

For a named relation, you have the following options:

- **Edit comment**: Use the comment field to explain why these two nodes are linked.

- **Flip link**: Use this option if you want to change the direction of a transitive or asymmetric link. (see the main manual).

- **Open in Link Manager**: The Link Manager for codes lists all code-code links; the Link Manager for quotations lists all hyperlinks. (see the main manual). In the Link Manager you can review all links, filter by relations, write comments or modify relations.

- **Change Relation**: Select a different relation from the list of available relations or create a new one and apply it.

- **Open Relation Manager**: to review and modify existing relations, or to create new relations. (see the main manual).

- **Copy**: This creates a plain text description of the relation between the two entities that you paste into a comment, memo or text editor.

- **Unlink**: Removes the link between the two nodes.
**Linking Codes to Codes, Quotations to Quotations, Memos to Memos in Managers and Browsers**

Quotations, codes and memos can also be linked to each other in the Manager, the Project Explorer, or the respective entity browsers.

Select one or more source items in the list pane of the Manager, in the respective sub-branches of the Project Explorer, or in the entity browsers and drag them to the target item in the same pane.

Select a relation from the list of relations in case you link two codes or two quotations, or select New Relation Type and create a new relation. (see the main manual).

**Linking Entities of Different Types**

When you code your data reading through a document, listening to audio data, viewing an image or video file, you are linking codes to quotations. This can also be done via drag & drop from the Project Explorer or any of the entity browsers to the list of codes or quotations in a manager.

This also applies to linking memos to codes, or memos to quotations.
Appendix

The following information has been compiled for the appendix:

- **System Requirements**
- Language Settings (see the main manual).
- Service Packs & Patches -- Live Update (see the main manual).
- Get In Touch (see the main manual).

- **Useful Resources:** Here you find links to the ATLAS.ti website, the Helpdesk, video tutorials, manuals in PDF format to download, the research blog and publications on the use of ATLAS.ti, including an article by Prof. Krippendorff about the implementation of inter-coder agreement in ATLAS.ti.

**System Requirements**

The system requirements are:

- macOS 10.13 High Sierra or higher
- min. 8 GB RAM
- 10 GB space on the hard drive

**Useful Resources**

The ATLAS.ti Welcome Screen (see the main manual) contains links to manuals, sample projects and video tutorials. The News sections informs you about current developments, updates that are released, interesting papers we have come across, use cases, and our newsletter.

**The ATLAS.ti Website**

https://atlasti.com/

The ATLAS.ti website should be a regular place to visit. Here you will find important information such as video tutorials, additional documentation of various software features, workshop announcements, special service providers, and announcements of recent service packs and patches.

**Getting Support**

https://support.atlasti.com

From within ATLAS.ti, select Help > Online Resources / Contact Support. Or access the Support Center directly via the above URL.
ATLAS.ti 9 -- What's New

What's New in ATLAS.ti 9

This document is intended specifically for users who already have experience using the previous version.

Video Tutorials

If you like to learn via video tutorials, we offer a range of videos covering technical as well as methodological issues.

ATLAS.ti 9 Video Tutorials

Sample Projects

You can download a number of different sample projects from our website. Currently English and Spanish language projects are available. The projects feature different types of data sources:

- text
- PDF
- image
- video
- geo data

... and different data types:

- interview transcripts
- reports
- online data
- evaluation data
- survey
- literature review

You can use them for yourself to get to know ATLAS.ti, or you can use them for teaching purposes. If available, also the raw data are provided.

PDF Manuals

ATLAS.ti 9 Mac Full Manual

ATLAS.ti 9 Mac Quick Tour

Research Blog

The ATLAS.ti Research Blog plays a very important role in the development and consolidation of the international community of users. Consultants, academics, and researchers publish short and practical articles highlighting functions and procedures with the software, and recommending strategies to successfully incorporate ATLAS.ti into a qualitative data analysis process. We invite you to submit short articles explaining interesting ways of making
the best use of ATLAS.ti, as well as describing how you are using it in your own research. To do so, please contact us.

Inter-coder Agreement in ATLAS.ti by Prof. Krippendorff

We have been closely working with Prof. Krippendorff on the implementation to make the original Krippendorff alpha coefficient useful for qualitative data analysis. This for instance required an extension and modification of the underlying mathematical calculation to account for multi-valued coding. (see the main manual). You can download an article written by Prof. Krippendorff about the implementation of the alpha family of coefficients in ATLAS.ti.

Publications

- Friese, Susanne (2016). Qualitative data analysis software: The state of the art. Special Issue: Qualitative Research in the Digital Humanities, Bosch, Reinoud (Ed.), KWALON, 61, 21(1), 34-45.


Get In Touch

Social Media

You can access all social media channels from within ATLAS.ti by selecting Help > Social Media.

Stay updated with the latest news on product updates, special offers, new training materials, or interesting articles and links we find. We are also happy to hear from users via these channels. Stop by and let us know about your projects and experience with ATLAS.ti!

• Twitter
• Facebook
• Instagram
• Linkedin

The ATLAS.ti YouTube channel offers a variety of video materials:

• Overview of the software functionality
• Recorded webinars
• Video tutorials that help you to learn the software.

Videos are available in English and Spanish.