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QUALITATIVE
DATA ANALYSIS



ATLAS.ti 7 Data Management

ATLAS.ti 7 Data Management

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Contents

About this Document.....	4
Data Management in ATLAS.ti.....	5
What happens When You Add Documents To A Project.....	5
Document Libraries.....	7
The Library Manager.....	8
Changing a Project that Uses My Library or Team Library to Use A Project Library.....	13
Trouble Shooting.....	13
Setting Up a New Project.....	15
Setting up a Single User Project Using the Standard Library.....	16
Setting up a project Using a Project Specific Library.....	17
Setting up Team Projects.....	17
Distributed Team Work – Common Set of Documents.....	19
Distributed Team Work – Different Set of Documents.....	22
Team Projects Using a Shared Location.....	23
Team Projects Using Shared & Remote Location.....	26
User Management.....	27
Merging Hermeneutic Units.....	34
Project Backup.....	46
HU Backup.....	46
Backing Up The Entire Project.....	47
Project Transfer.....	56

About This Document

This document is an excerpt of the full manual and describes data management in ATLAS.ti 7.5 (and newer).

Document Conventions

Margin notes:

Margin notes contain important observations of a general nature.

Notes

This paragraph contains a general note that may be of interest or worth remembering.

Tip/Recommendation

This paragraph contains a *tip or recommendation*, i. e., something we advise you to make a practice in your work.

Caution

This paragraph contains a *warning or caution*, i. e., something you should avoid doing or be aware of consequences beyond the action itself.

Instruction

This paragraph contains an *instruction*, i. e., something you should follow along and/or execute in the program.

Additional resources/Suggested further reading

Additional information about this topic is available elsewhere, usually *online* from our [web site](#) or some other place on the Web.

Data Management In ATLAS.ti

What Happens When You Add Documents To A Project

Documents Are Copied To A Library

If you use the standard option **Add Documents**, ATLAS.ti creates a **copy** of the document (the data source) and puts this copy into what we call a '**library**'.

The library is a special file repository. By default, it is located in a hidden folder on your computer and you do not have to concern yourself with it. You can either use the provided default library, or create your own project-specific library. For recommendations when to use which library see the section "Document Libraries" below.

Once you have added documents to a library, ATLAS.ti will not need the original source documents any longer. It is, however, good practice to keep a copy of the original documents as a backup.

Unique Fingerprint

During the process of adding documents to a project (applies to all options), each document receives a unique "fingerprint." This way ATLAS.ti has a unique identifier for each of its primary documents which, for instance, facilitates the technical side of merging. The program can be sure that it merges indeed identical documents.

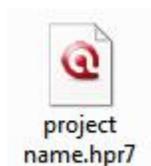
From the user's perspective, this is not always this clear. A common situation is that a user thinks the projects contain identical documents – they have the same content. But for ATLAS.ti these documents are no longer the same because they either have been added to a project on different computers, or they have been added on the same computer to different projects. This results in duplicate documents after merging. In order to solve this, a new menu option as been added: see "Trouble-shooting after merging."

Team projects: In order to ensure that identical documents in fact get the same fingerprint, the project administrator needs to create a Master HU first, add documents to it and then distribute a copy bundle file to all team members. If you do not adhere to this rule, you will end up with duplicates and multiples of the same document after merging. Should this happen, see

“Trouble-shooting after merging.” – For important tips and instructions on how to properly set up team projects see section “Setting up Team Projects.”

What Happens To Version 5 Or 6 HUs?

If you load a version 5 or 6 project, you will be asked whether you want ATLAS.ti to manage your documents. You can also decide that the HU should not be managed by ATLAS.ti for now. This is necessary, for example, in the process of migrating a team project to ATLAS.ti 7, if team members work at different locations.



What File(s) Do I Need To Pay Attention To?

Basically, the two files you need to concern yourself with are your HU file and a copy bundle file (your project in a box).

A version 7 project (HU) file has the file extension .hpr7. This file can be stored anywhere and you can move it to any location, as long as access to the library is available. Since documents are added to the library and not embedded in the HU, the HU file still remains rather small.

A second file you will want to attend to is the copy bundle file as a backup of your entire project.

How Do I Move A Project To A Different Location?

To move an ATLAS.ti 7 project, create a copy bundle file as usual and unpack it at the new location (**PROJECT / SAVE COPY BUNDLE**). On the target computer, double-click the copy bundle file or open ATLAS.ti first and select **PROJECT / UNPACK COPY BUNDLE**.



To make it more obvious what a copy bundle file is, its icon symbolizes your project as a box. The copy bundle file extension is: **atlcb**.

If during the course of the project new files are added to the HU or documents are modified, you can create a partial bundle that only includes those very documents. This reduces the size of the bundle considerably (see How to Create A Copy Bundle).

Once all documents are available in the library at the various locations, all you will need to move back and forth is the HU (.hpr7) file alone.

Can I Still Use Linked Documents?

Yes, if you prefer, you can still manage your documents yourself, i.e. work with **linked** documents as in older versions of ATLAS.ti.

To do so, use the option **DOCUMENTS / NEW / ASSIGN EXTERNAL DOCUMENTS**.

However, our recommendation would be that you transfer your projects to the new managed format since it offers numerous advantages: There is much less to consider in terms of project and data management; files are compressed, so you save hard disc space; all document revisions are tracked; you can edit all text documents (also original doc and docx files); and your entire project is more robust.

Document Libraries

You can choose to work with the standard library or to create a new library for instance for each project. Below are recommendations when to use which library.

Use The Default Library ("My Library")

- For all "normal" single user projects on personal computers
- Distributed team work – Different set of documents (project set-up)
- Optional: for distributed team work – common set of documents

Use A Project-Specific Library

- If the default library location* is reset (=the content is deleted) by your university IT at regular intervals
- If you do not have access to the default library location due to restrictions by your IT department
- When setting up a team project at a shared location
- If you set up a number of different team projects and the data of each project should not all be stored in the same folder
- Optional: For distributed team work with common set of documents
- Optional: For distributed team work with Different set of documents (after merging)

*The default library path is: C:\Users\USER
NAME\AppData\Roaming\Scientific Software\ATLAS.ti

Which Library Should I Use For Team Projects

Use the default library:

- Initial project setup at each location: Distributed team work – Different set of documents (after merging you can move the data into a project library)

Use a project-specific library:

- When setting up a team project at a shared location
- When working with sensitive data
- If you set up a number of different team projects, and the data of each project should not all be stored in the same folder

Which Library Should I Use If I Work With Sensitive Data

You have two options:

You can either use the default library and move it to a different location that satisfies the security needs of your project (see **EXTRAS** menu in the Library Manager (see “Moving Library To A New Location”), or you can create a project specific library at a location of your choice (see “Setting up a project Using a Project Specific Library”).

The Library Manager

The Library Manager offers access to *the library currently used by the HU*. This is either the default library (“My Library”), or project-specific libraries created by the user. The library manager provides information about the name, type, and size of each imported document, as well as the time when it was imported, the modification date of the source file, and the location from where it was added.

The Library Manager should primarily be accessed by project administrators only.

Use the library manager to export or to delete documents, to move a library to a new location, to create or to delete libraries, or to validate a selected library.

To access the ATLAS.ti libraries, select **DOCUMENTS / DATA SOURCE MANAGEMENT / OPEN LIBRARY MANAGER**.

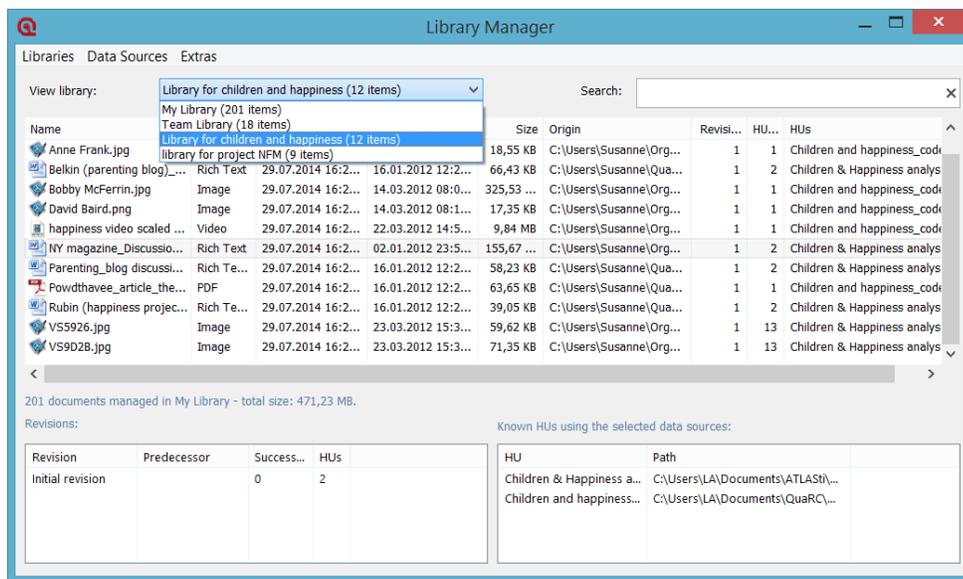


Figure 1: The Library Manager

- Select a library by opening the drop-down menu next to *View library*:
- With a click on each column header in the selected library, you can sort the documents by the various headers.
- Use the search field on the top right hand side to look for particular documents.

The pane at the bottom left provides information about data source revisions, i. e., whether a document has already been edited or not.

In the pane next to it, all HUs that use the documents are listed. A double-click opens the HU(s) from here.

Library Manager Menus

Add Project Library

Use this option to register an existing library in the library manager, or to create a new project specific library.

Validate Selected Library

During the process of validating, ATLAS.ti checks the library for inconsistencies. Possible inconsistencies are documents that are still managed by the library, but do no longer exist; or documents that are no longer used by any of the HUs. If inconsistencies are found, you will be informed by the following dialogue:

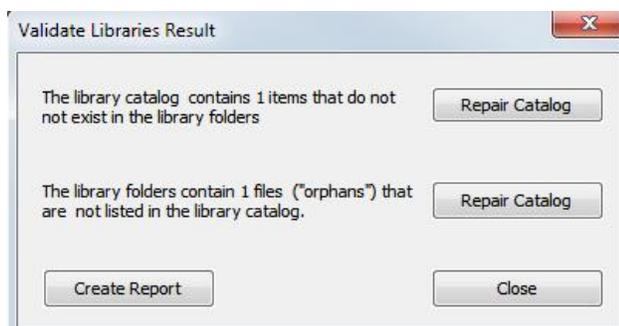


Figure 2: Result of a library validation

Click on **REPAIR CATALOG** and close the window.

If no problems are found, you will see the following message:

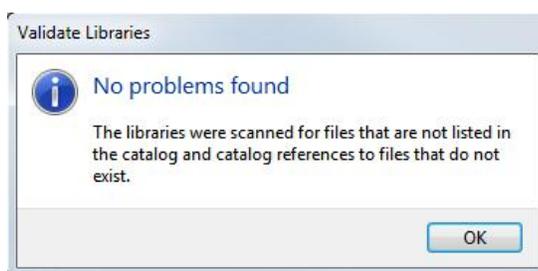


Figure 3: Validating: No problems found

Delete Selected Library

Use this option to delete a library that you no longer need or want. If the library still contains documents, you will be warned and you need to confirm the deletion process.

Close Library Manager

Select **LIBRARIES / EXIT** to close the Library Manager.

Data Sources Menu; The **DATA SOURCES** menu offers you the options to delete and to export documents from the library.

Exporting Documents

Select **DATA SOURCES / EXPORT**

The export option is useful if you have been creating or editing text documents in ATLAS.ti and want to export them as Word files. To export documents, select them in the library manager, select the export option and specify a location for storing the exported files.

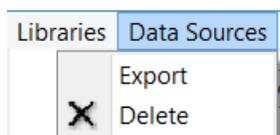


Figure 4: Library Manager: Data Sources menu

Deleting Data Sources From The Library

- Select a library and in that library one or more documents
- Select **DATA SOURCES / DELETE**

Use the **DELETE** option with caution. If you delete documents from the library that are used by one or more HUs, the documents will no longer be available in those HU(s) and you lose all coding, commenting, etc. that you have done!

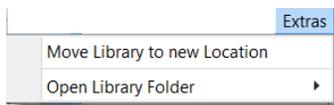


Figure 5: Library Manager: Extras menu

Moving Library To A New Location

Use this option to move the folder that contains the library to a different location. This might be necessary if your IT service regularly rewrites your C drive (where the library folder is located by default). You may also need this option if the location of a project specific library is no longer suitable.

- Select **Extras / Move Library to New Location**

Visiting The Library Folder

- The menu option **EXTRAS / OPEN LIBRARY FOLDER** opens the Explorer and takes you to the folder on your computer where the ATLAS.ti library files are stored.

You will not be able to recognize your original source files. ATLAS.ti has converted them to an ATLAS.ti specific format. **Please Do Not Touch This Folder.**

Copying Documents Between My And Team Library

This option is only available for projects that still use the old library folders, My Library and Team Library (version 7.1 or earlier). It lets you move documents from My Library to the Team Library, or from the Team Library to My Library.

- Open the Primary Document Manager and highlight the document(s) that you want to move. Right click and select **DATA SOURCE MANAGEMENT / COPY SELECTED DOCUMENTS TO...** Depending on where the documents are currently stored, the menu offers the choice to either move them to My Library or the Team Library.

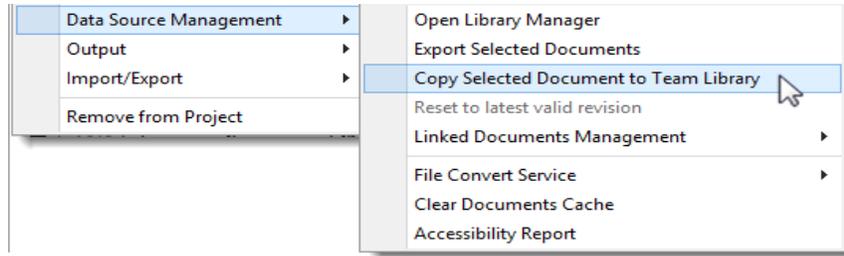


Figure 6: Moving documents between libraries

If you use a project specific library, you can also copy documents to a different library, but not via this menu option. You need to use the option **PROJECT / SET PROJECT LIBRARY**. Then select one of the existing libraries to move your documents.

Exporting Documents From The Library

As all documents are copied to the library (unless you work with linked documents), all modifications you make to the document are only reflected in the library document and no longer in your original Word document. Therefore, ATLAS.ti 7 offers an export option:

- Select the documents you want to export in the P-Docs Manager.
- Right-click and selections **DATA SOURCE MANAGEMENT / EXPORT SELECTED DOCUMENTS**.
- Select a destination where you want to store them and click OK.

You may also use the menu **DATA SOURCES / EXPORT** in the library manager to export documents.

Adding Externally Linked Documents To A Library

If your HU contains externally linked documents and you want to import them into the library, you have two options:

- *Option A:* From the main menu select **PROJECT / CONSOLIDATE DOCUMENTS...**
- *Option B:* Select the externally linked files in the P-Docs Manager.
- Right-click and select **DATA SOURCE MANAGEMENT / MANAGE SELECTED PDS**.

Changing A Project That Uses My Library Or Team Library To Use A Project Library

The single Team Library concept was abandoned with version 7.5. You will only have a Team Library if you set up your project prior to updating to version 7.5.

- Open a project that uses either *My Library* or the *Team Library*.
- From the main menu select **PROJECT / SET PROJECT LIBRARY**.
- Click on the button **CREATE OR SELECT LIBRARY FOLDER**.
- Next, select a library path. The folder tree opens at the path ...*Scientific Software/ATLAS.ti*. We recommend to create folders for project specific libraries under the ATLAS.ti folder. However, if you wish to chose another location, this is also possible.
- Select **CREATE A NEW FOLDER** and enter a name, or select an existing folder. Click **OK**.
- Confirm that the HU should be connected to the selected library and that all documents of this HU are copied to the selected library.

Trouble Shooting

Documents Cannot Be Loaded

You have been working on your project for a while and “suddenly” your primary documents cannot be loaded anymore. You can still see them in the list of documents in the P-Docs Manager, but the entry is gray. Why did this happen?

It could be that you moved your project to a different computer, but instead of taking a copy bundle file along, you just moved the HU file (see “Project Transfer.”

It could be that the library was deleted or does no longer contain documents, e.g. because the drive where the library was located was cleaned-up by your IT department, or you updated your operating system and this wiped out your library, or you re-installed your operating system and are now logged in under a different user name.

If at some point in the past you have created a copy bundle file, your problem is likely to be solved very quickly. Unpack the copy bundle file – exclude the HU file if it is an older version – and in most cases you will be up and running again (see “How To Unpack A Copy Bundle.” If you have been editing documents within ATLAS.ti and the copy bundle file does not contain the latest

changes, you need to get in touch with the help-desk. They can re-connect your documents, but you may have to adjust some of the coded segments.

If you do not have a copy bundle file, there is also a solution: You need to copy the original source files that you have been adding to your ATLAS.ti project into the same folder where the HU file is stored. If ATLAS.ti cannot find your documents in the library (or at the original path) it will look for them in the folder where the HU is stored. If found there, you will be asked whether the documents should be added to the library. You need to confirm this for each document that is found.

As for the solution above, this works well if the documents have not been modified (either inside or outside of ATLAS.ti). If this is the case, please contact the help-desk.

After you have re-created your project and all documents can be loaded again, please create a copy bundle as backup! See "How to Create A Copy Bundle."

Setting Up A New Project

If you click on the main menu **DOCUMENTS / NEW / ...** you find a number of to a project options to add documents to an ATLAS.ti project:

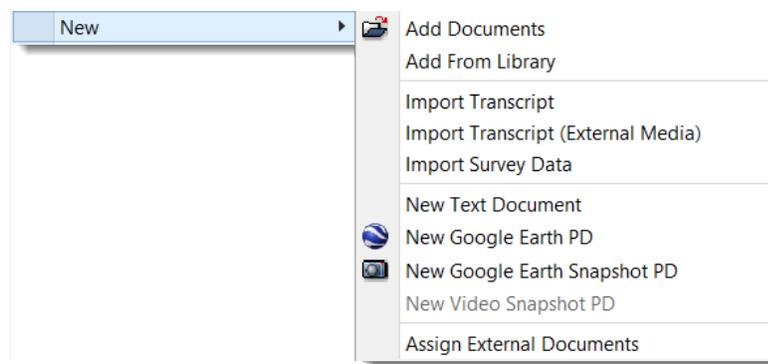


Figure 7: The various options to add documents to an ATLAS.ti 7 project

- **Add Documents:** Your documents will be copied and imported to the standard library. If you want to create your own project specific library, see "Setting Up Project Specific Libraries."
- **Add From Library:** Use this option if you want to use documents that are already in the library.
- **Import Transcript and Import Transcript (External Media):** Import documents that you have transcribed using f4 (Windows), f5 (Mac) or Transana. The transcripts are turned into an embedded documents and the associated media file are either added to the library or remain external as linked files.
- **Import Survey Data:** Import survey data based on an Excel spread sheet. Case-based data are imported as embedded documents."
- **New Text Document:** Create a new embedded text document.
- **New Google Earth PD:** Create a new Google Earth PD.
- **New Google Earth Snapshot PD:** Create a snapshot from the currently loaded GoogleEarth location as image PD.
- **New Video Snapshot PD:** Create a snapshot from the current video frame as image PD.
- **Assigning external (linked) documents** like you are used to from older versions of ATLAS.ti. The recommended scenario is the HUPATH option, which means you store HU file and your documents in one folder.

Setting Up A Single User Project Using The Standard Library



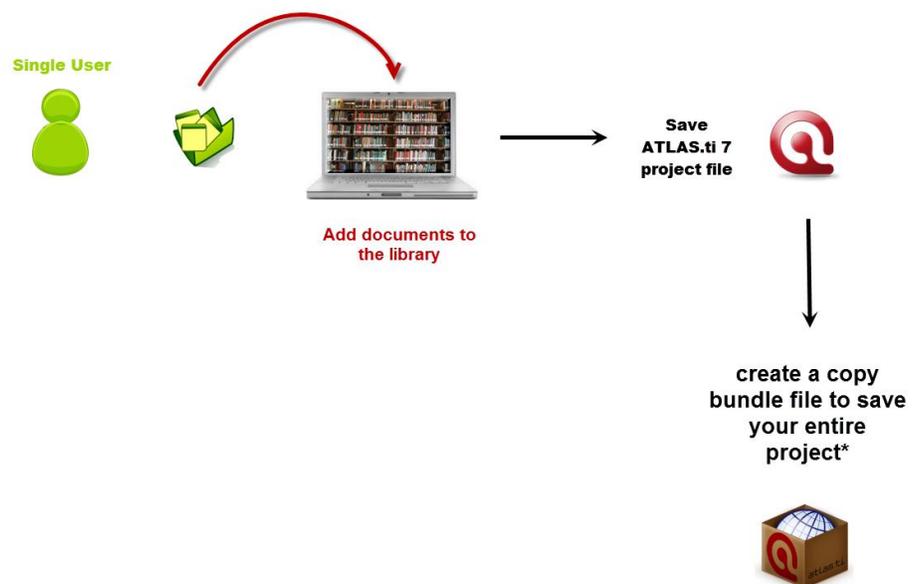
Open ATLAS.ti and create a new Hermeneutic Unit: **PROJECT / NEW HERMENEUTIC UNIT**.

Select **DOCUMENTS / NEW / ADD DOCUMENTS**, or drag and drop a folder / selected documents from the File Explorer onto the HU Editor.

During the data import process a file quality check is carried out.

After you have added documents to your project, save the project file to any location: **PROJECT / SAVE**.

We recommend to save the HU file on a local drive or on a server. Please do **NOT** save HU files in the cloud due to the nature of cloud locations to synchronize data across different devices. This may endanger the integrity of the HU file.



* if your HU only contains embedded documents, creating a copy bundle file is not necessary.

Figure 8: Project setup for single users

It is recommended to create a copy bundle file as backup: **PROJECT / SAVE COPY BUNDLE**.

Setting Up A Project Using A Project Specific Library

You may want to use this option, if you work with sensitive data that you need to store at a particular location, or if there are issues using the default location for the standard library (which is a folder under C:\Users\USER NAME\AppData\Roaming\Scientific Software\ATLAS.ti\....)

If you want to start a new project using a project specific library:

- Open ATLAS.ti and select: **PROJECT / NEW HERMENEUTIC UNIT.**
- Select **PROJECT / SET PROJECT LIBRARY.**
- Click on the button **CREATE OR SELECT LIBRARY FOLDER.**
- Next, choose a library path. The file manager opens at the location ...*Scientific Software/ATLAS.ti*. We recommend to create folders for project specific libraries under the ATLAS.ti folder. However, if you wish to chose another location, this is possible.
- Select **SELECT FOLDER** (the button shows the language of your Windows system) and enter a name, or select an existing folder. Click **OK.**
- Confirm that you want to connect your HU to this new library.
- Next, add documents to your project: **DOCUMENTS / NEW / ADD DOCUMENTS...**
- After you have added documents to your project, save the project file (HU), to any location: **PROJECT / SAVE.**
- Create a copy bundle file as backup: **PROJECT / SAVE COPY BUNDLE.**

Setting Up Team Projects

When working in teams, multiple scenarios are possible:

- A team analyzes a common set of documents across different sites. For this scenario, the *standard library* or a *project specific library* can be used.
- Initially, the documents at each site are different. Every person analyzes a sub set of the data before merging the HUs. Use the *standard library* for this scenario.
- A team analyzes a common set of documents, which are stored on a server that everyone can access. Create a *project specific library* on the server.

Commonalities Of Team Projects

One person in the team should take on the role of **project administrator**. The designated project administrator usually sets up the project, distributes it to the other team members, collects the sub projects and merges them.

Unless there are good reasons to work with linked documents, we recommend to add all documents to a **library**.

For the following situations, we recommend to work with **project specific libraries**:

- team members want or need to access documents from a shared location
- coders work on different projects at the same time, but should only have access to the data of projects they are assigned to
- your data corpus contains sensitive data that should only be accessed by those assigned to a project

All team members best create an ATLAS.ti **user account** on their computer and log in with their user name. You find the User Management menu under the Tools menu.

Setting Up Project Specific Libraries

■ Open ATLAS.ti and create a new project: **PROJECT / NEW HERMENEUTIC UNIT**.

■ Select **PROJECT / SET PROJECT LIBRARY**.

■ Click the button **CREATE OR SELECT LIBRARY FOLDER**. Create a new folder and enter a name, or select an existing folder. Click **OK**.

The folder tree opens at the location *...Scientific Software/ATLAS.ti*. This is a sub folder under *AppData/Roaming*, which is a location provided by Microsoft Windows for applications to store their data. Unless you want to store the library on a server, it is recommended to create your libraries at this location.

■ Confirm that you want to connect your HU to this new library.

All newly added documents will be added to this newly created library.

Distributed Team Work – Common Set Of Documents

If initially a common body of data should be made available to the team, it is **mandatory** that one person sets up the project and distributes it to the other team members in form of a copy bundle file.



Figure 9: Team project setup if all team members access a common data

Tasks Of The Project Administrator

- Open ATLAS.ti and create a new Hermeneutic Unit: **PROJECT / NEW HERMENEUTIC UNIT**.
- To add documents, select **DOCUMENTS / NEW / ADD DOCUMENTS**, or drag and drop a folder / selected documents from the File Explorer onto the HU Editor.
- Save the project file (the HU) to any location: **PROJECT / SAVE**.
- Create a copy bundle file (**PROJECT / SAVE COPY BUNDLE**) and distribute it to all team members (see “How to Create A Copy Bundle.”)
- Ask all team members to create an ATLAS.ti user account on their computer and to log in.

If your project contains linked documents, the recommendation is to store these documents in the same folder as the HU file (i.e. HUPATH).

Tasks Of The Team Members

- Create an ATLAS.ti user account on your computer and log in with your user name. You find the **USER MANAGEMENT** menu under the **TOOLS** menu.
- Install the copy bundle file that you received from the project administrator: **PROJECT / UNPACK COPY BUNDLE** (see “How To Unpack A Copy Bundle”).

In case the project administrator has set up the project with a project specific library, you need to select a location on your computer for this library. It can be a different location on each computer.

During the process of installing the copy bundle file, you can rename the Hermeneutic Unit, e.g. by adding your name or initials. This is recommended as all sub HUs should have a different name. Another option to save the HU under a different name is after unbundling the copy bundle file via: **PROJECT / SAVE AS...**

After each work session, save the HU (**PROJECT / SAVE**) and create a copy bundle file as backup (**PROJECT / SAVE COPY BUNDLE**).

Continuous Project Work (Documents Are Not Edited)

Tasks Of The Team Members

After an agreed-upon interval, each team member sends his/her project to the project administrator for merging. As none of the documents has been modified, it is sufficient to send the HU file.

Tasks of the project administrator

Merge the various HU files you receive from the team members (see "Merging Hermeneutic Units.")

Create a new Master HU and distribute the new Master file to the team members.

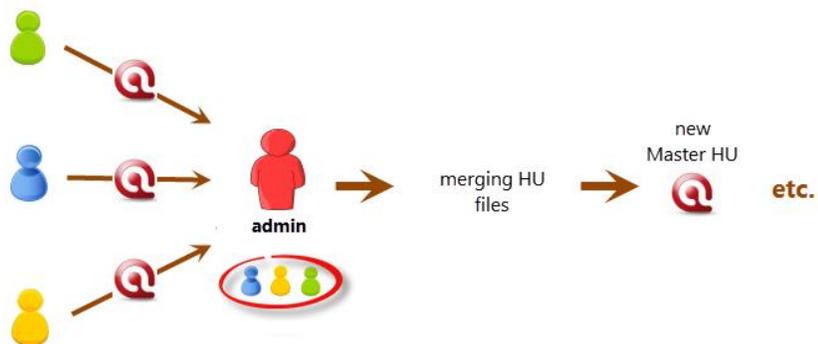


Figure 10: Continuous process of merging and distributing

Tasks Of The Team Members

Rename the new Master file by adding your name or initials to the file name and continue your work.

Continuous Project Work (Documents Are Edited)

Please note: Even under the managed document concept, editing the same data source at two different locations should not be permitted. If you do so anyway, this primary document can no longer be merged. You will end up with two versions of it. Thus, if editing by team members is permitted, you should formulate strict guidelines as to who is allowed to edit which document.

Tasks Of The Team Members

If documents are modified, the data sources have to be sent back to the project administrator for merging. This is done in form of a copy bundle file. Just sending the HU file is not sufficient.

- Create a copy bundle file and send it to the person who volunteered to be the project administrator (**PROJECT / SAVE COPY BUNDLE**).

Tasks Of The Project Administrator

- Install all copy bundle files (**PROJECT / UNPACK COPY BUNDLE**).
- Merge all HUs and saves the outcome as new *Master HU* (see “Merging Hermeneutic Units.”)
- Create a copy bundle file and distributes it to all team members.

Distributed Team Work – Different Set Of Documents

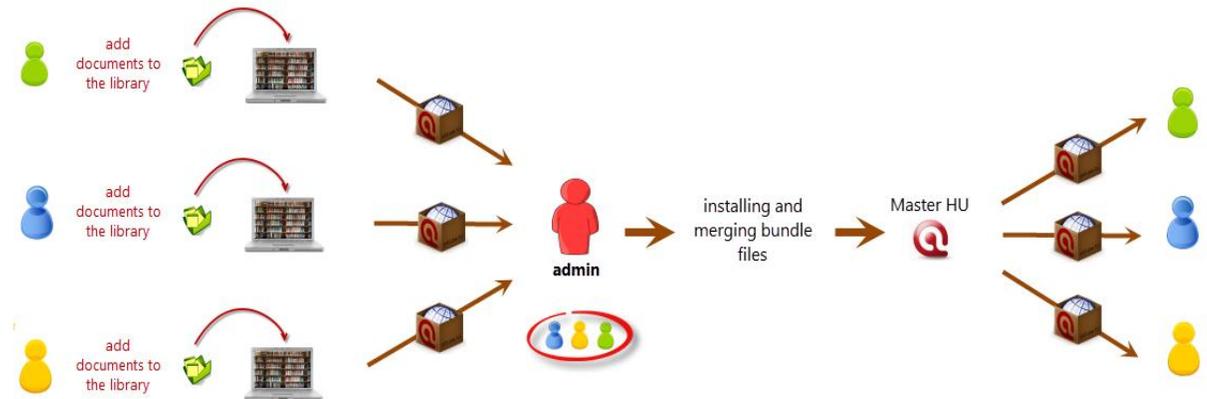


Figure 11: Team project setup if different data sources are analyzed at every site

Tasks Of The Team Members

Use the standard library to set up the project at each location. If the default location of the standard library is not suitable, move the standard library to a location of your choice (see “Moving Library To A New Location.”)

- Create an ATLAS.ti user account on your computer and log in under your user name. You find the **USER MANAGEMENT** menu under the **TOOLS** menu.
- Set up your sub project by creating a new Hermeneutic Unit (**PROJECT / NEW HERMENEUTIC UNIT**) and add documents:
- **DOCUMENTS / NEW / ADD DOCUMENTS**, or drag and drop a folder / selected documents from the File Explorer onto the HU Editor.

It is recommended to use the **standard library** at this point in the process. If a project specific library should be used, the project administrator can move the documents to a project specific library after the first round of merging.

If each person starts out with a project specific library, all documents will be copied to the library of the target HU during the process of merging. See “Merging Hermeneutic Units.”

- Save the project file to any location: **PROJECT / SAVE**.
- Save a copy bundle file as backup: **PROJECT / SAVE COPY BUNDLE**.
- Begin to work on your sub project.

Continuous Project Work

After an agreed-upon interval, each team member sends their work to the project administrator for merging in form of a copy bundle file: **PROJECT / SAVE COPY BUNDLE**.

Tasks Of The Project Administrator

The project administrator can be someone from the team who volunteers to take on the task of merging and re-distributing.

Install all copy bundle files: **PROJECT / UNPACK COPY BUNDLE**.

Merge all HUs and saves the outcome as new *Master HU* (see “Merging Hermeneutic Units.”)

If desired, the project administrator can now create a project specific library and set the merged project to this library (see “Setting Up Project Specific Libraries”).

Create a copy bundle file (**PROJECT / SAVE COPY BUNDLE**) and distribute it to all team members.

Tasks Of The Team Members

Unpack the copy bundle file that you receive from the project administrator: **PROJECT / UNPACK COPY BUNDLE**. Rename the HU file during this process (see “How To Unpack A Copy Bundle”).

If the project administrator has moved the documents to a project specific library, you need to specify where this new library should be stored on your computer.

Continue to work on the project.

Repeat the above cycle as often as necessary to complete the analysis.

Team Projects Using A Shared Location

If all team members access the data at a shared location like a network drive, it is recommended to work with a **project specific library**.

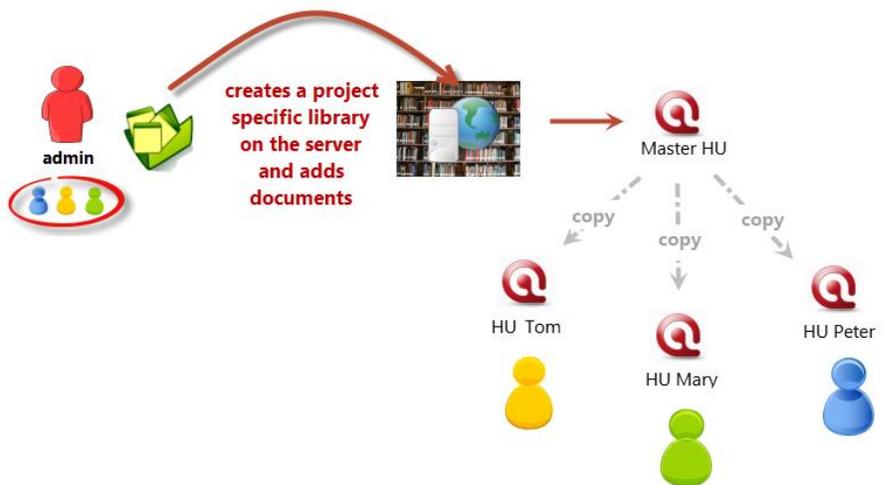


Figure 12: Team projects using a shared location

Tasks Of The Project Administrator

- Start ATLAS.ti and create a new Hermeneutic Unit: **PROJECT / NEW HERMENEUTIC UNIT**.
- Create a new library at the shared location: **PROJECT / SET PROJECT LIBRARY** (see "Setting Up Project Specific Libraries."
- Add documents to the project: **DOCUMENTS / NEW / ADD DOCUMENTS**, or drags them from the File Explorer into the HU editor.
- Save the Hermeneutic Unit (can be to any location): **PROJECT / SAVE**.
- Save the project in form of a copy bundle file as backup: **PROJECT / SAVE COPY BUNDLE**.
- Make the Master HU file available to all team members, e.g. in a special folder for HU files on the server.

If your project contains linked documents, the recommendation is to store these documents on the server in the same folder as the HU file (i.e. HUPATH, see ATLAS.ti 6 manual).

Tasks Of The Team Members

- Create an ATLAS.ti user account on your computer and log in under your user name. You find the **USER MANAGEMENT** menu under the **TOOLS** menu.
- Rename the HU file that you receive from the project administrator, e.g. by adding your name or initials to the file name.
- Open the HU file and begin your work.

If you cannot load the documents, make sure that you have access to the shared location that contains the library which has been set up by your project administrator. In case there are issues, please contact your project administrator.

Editing primary documents can be allowed when storing the library at a shared location that all team members can access. If a modified document is loaded in another HU of another team member, the codings in this HU are adjusted automatically.

Continuous Project Work

After an agreed upon interval, the project administrator merges the HUs of all team members. If team members store their HU files locally, they should move them to a shared location for merging (see Figure 13 below).

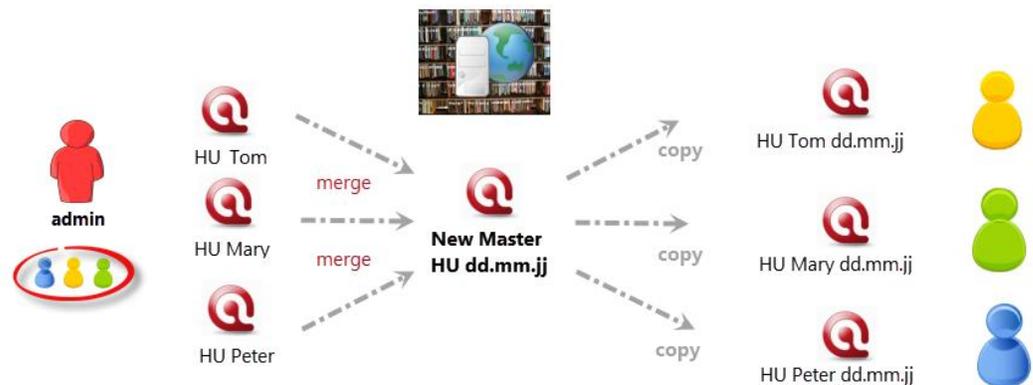


Figure 13: Merging and distributing server based team projects

Tasks Of The Project Administrator

- Merge the various HU files
- Create a new Master HU and save it at the shared location under a new name, e.g., by adding the date. The old Master HU can be moved to a backup folder.
- Create a copy bundle file as backup (**PROJECT / SAVE COPY BUNDLE**).

Tasks Of The Team Members

- Make a copy of the new Master file, rename it by adding your name or initial and continue your work.

Team Projects Using Shared & Remote Location

If some of the team members have access to a shared location, but others have not, the suggestion is to work with a project specific library. You can set up the project specific library at the shared location and the team members that have access to the shared location work on the project as has been described above (“Team Projects Using a Shared Location”).

All team members that work at a remote location receive a copy bundle file. When unpacking the bundle, they will be asked to specify a location for the project library. As they do not have access to the shared location, they select a location on their local drives (see “Distributed Team Work – Common Set of Documents” and “Tasks of the team members.”)

Thus, the project uses the same project library (same name) on all computers – but the actual location where this library is stored is different.

User Management



Collaboration or multi-authoring means that more than one author may work on an ATLAS.ti project at different times. ATLAS.ti supports this teamwork by systematically keeping track of each author's productions.

Every object created, including the Hermeneutic Unit itself, is automatically stamped with a date, time, and author. This identification of the author is what makes the log in process upon system start necessary (which by default proceeds automatically). Simultaneous collaboration is not supported, so only one person can work on a specific Hermeneutic Unit at a time. By default, only the author who created the Hermeneutic Unit (the *owner* or original author), is *authorized* to load, read, and edit the Hermeneutic Unit.

Letting others participate in creating a Hermeneutic Unit requires a few bureaucratic adjustments; one of which is the definition of *users*.

The simple concept of the ATLAS.ti user management allows all data that will be shared by different users to be placed in publicly accessible directories. But even with the Hermeneutic Units stored in a public directory, access can be restricted to the author. In other words, Hermeneutic Units can either be private or public. The default setting is *public*. If set to private, other users can be defined as co-authors for this Hermeneutic Unit (see "Access Rights for the HU").

ATLAS.ti's user database is independent of the account database in a local area network or your Windows log-in name.

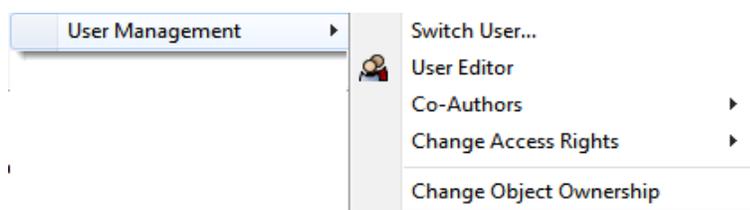


Figure 14: User Management sub menu

To keep it simple, it is best to leave the default setting to public access and to allow all users to create an account with administrative rights. These rights only apply when working with ATLAS.ti. Users defined in ATLAS.ti are not necessarily the same as Windows users. Furthermore, administrative rights assigned to an ATLAS.ti user have nothing to do with Windows user rights.

Adding A New User

If you do not intend to use ATLAS.ti in a work group environment, the only procedure you will need to be familiar with is how to modify the default account named "Super."

ATLAS.ti knows two classes of users: *administrators*, and all others. Administrators have more rights than "normal" users. The key rights of administrators are the ability to define new users, to install service packs or use the more advanced data source management features. Thus, in order to be able to create new user accounts, you need to be logged as a user with administrative rights. By default, you are logged in as "Super" user and this user has administrative rights.

To create a new user account, select **TOOLS / USER MANAGEMENT / USER EDITOR** from the main menu.

If this option is grayed out in the menu, you are logged in as standard user. Choose **TOOLS / USER MANAGEMENT / SWITCH USER...** and log in as Super user to be able to access the user administration window.

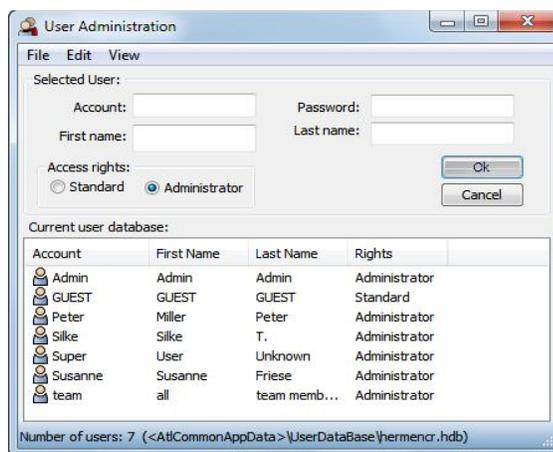


Figure 15: User Administration Editor

The user administration tool allows you to create, modify and remove users.

A user is characterized by five attributes, four of which you are prompted for in sequence: *Account name, password, last name, first name.*

Account name: When working with ATLAS.ti, the account name has to be entered at log-in time. Every object created, including the Hermeneutic Unit, is stamped with the account name.

Password: A password should be at least 4 characters (letters, digits, symbols) long, but should not exceed 10 letters (higher risk of typos). A password can be changed later by the administrator. However, when logging in, you are not required to enter a password if the default settings are kept (see Relaxed User Management below).

Last and first name: Both names really have no important function other than giving the user a correct welcome. However, both a last and a first name must be provided when defining a user.

To add a new user:

- Select **EDIT / NEW USER**.

- Enter an Account name, a password, the last and the first name into the sequence of “prompters”.

After completion of the sign up procedure, the new entry appears in the list of users. The “Access rights” attribute is set to “Administrator” by default (see “Administrative and Standard Access Rights” below).

- Change the access rights if needed.

Administrative And Standard Access Rights

Administrative rights allow you to add, delete and change users. In addition, administrative access rights are necessary if you want to edit primary documents.

Users with **standard rights** can only access HUs they have created themselves, or those where there have been registered as co-author. They are not allowed to edit primary documents.

Removing A User

To assure that there is at least one user with administrative privileges in the database, any attempts to remove all administrators is rejected. You cannot, for instance, remove the user who is logged in.

- Select the user to be removed in the list, right click and select the option **DELETE USER** or or select the corresponding menu item from the **EDIT** menu.

Changing User Attributes

You can change the account name, the password, the first and last names of a user and the access rights.

- Right click on a user entry and select the appropriate option from the context menu, or highlight a user and select the corresponding menu item from the **EDIT** menu.

None of the menu options except *New user* will be available if you select yourself in the list of users. If you need to change or even delete your own account, you need to switch to a different administrative account (e.g.

super), edit your normal account and switch back again (TOOLS / USER MANAGEMENT / SWITCH USER...

Saving The User Database

After new definitions and modifications, the user database must be explicitly saved or all changes will be discarded. If you close the user administrator window without saving, you will be prompted to save.

Be default the user data base is stored in a file called HERMENC.R.HDB in the ATLAS.ti program folder. This name and folder should be used, unless you are about to create a copy of the database.

To save the user data base, select **File / Save** from the main menu in the User Administration window.

Switching Accounts

After creating a new account, the next step is log in under your name, i.e. to switch to your new account:

Select **TOOLS / USER MANAGEMENT / SWITCH USER...**

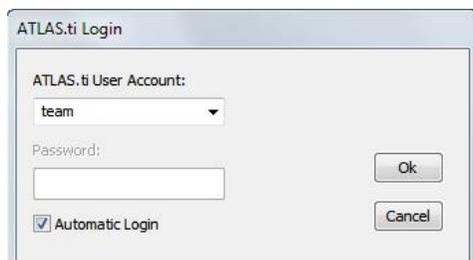


Figure 16: Login Window

Select a user account from the drop-down list.

Password: Note that the password field is grayed out and that you are not required to enter a password. If you do want to password protect your user account, you need to change the relaxed user management setting (see "Relaxed User Management;" to set a password for the HU, see "Access Rights for the HU").

Automatic Login: If you are the only person working at this particular computer (or on a public computer using a personal Windows user account), then the automatic login can remain activated. This means the current log in name is also used for the next sessions. If more than one user works on the same computer, then the automatic log in should be deactivated. If

deactivated, the login window pops up upon start-up and the user is prompted to log in.

Access Rights For The HU

To change access rights for a HU, choose the option **TOOLS / USER MANAGEMENT / CHANGE ACCESS RIGHTS** from the main menu. Four options are offered:

Public - read only: this choice lets all other users load and view the Hermeneutic Unit, it may even be edited, e. g. for training purposes, but it cannot be saved to disk.

Public - read & write (default): permits other users to have the same rights as the author, but not the ability to change the access rights.

Private: By choosing this option you can revoke previously granted rights again.

“Set Password” lets you protect the Hermeneutic Unit against loading unless a correct password is provided. Make sure you remember the password or you will not be able to load your own Hermeneutic Unit again!

As with all other access-related options you need to save the Hermeneutic Unit before any changes are in effect.

Co-Authors

To restrict access to a group of co-authors (i. e., more than one author), the sub-menu **TOOLS / USER MANAGEMENT / CO-AUTHORS** offers three options for authors: add, remove, and view the list of co-authors currently defined for this Hermeneutic Unit. This feature only makes sense if public access to the HU has not been granted.

To Register Co-authors

Co-authors have the same rights as the original author, except for the right to define or remove co-authors, unless having administrative rights themselves.

Select **TOOLS / USER MANAGEMENT / CO-AUTHORS / REGISTER CO-AUTHORS**. You are presented the list of all users known to the system (which have previously been defined by the administrator or the original author).



Figure 17: Registering co-authors

Select one more authors from the list and click OK. A message pops up informing you who is registered as co-authors for the currently loaded. HU.

To Remove Co-authors

Select **TOOLS / USER MANAGEMENT / Co-AUTHORS / REMOVE Co-AUTHORS**. You are presented the list of current co-authors. Choose the ones to be removed from the Hermeneutic Unit.

To Display Co-authors

Select **TOOLS / USER MANAGEMENT / Co-AUTHORS / DISPLAY Co-AUTHORS**. You see a list of the co-authors currently assigned to the Hermeneutic Unit.

To Filter By Co-authors

To display only those parts of a Hermeneutic Unit created by a subset of the co-authors involved, choose the filter-option **Co-AUTHORS** in any of the Object Managers.

The User Database

All ATLAS.ti users are cataloged in a special "database" -file *HERMENC.R.HDB*, located in the ATLAS.ti system directory. This file is loaded on program start-up.

Never modify the user database file *HERMENC.R.HDB* from outside ATLAS.ti, as this will corrupt it and lock you out of the system!

After the initial installation of ATLAS.ti, there is already one "dummy" user with administrator privileges set up: Account = SUPER, password = USER. Because *automatic login* is the default mode, it is quite likely that you usually work under this default account.

Creating And Working With Different User Databases

To create a new data base, save the standard data base *HERMENC.R.HDB* under a new name, e. g. *hermencr_2.hdb*: **FILES / SAVE AS**.

- Make the desired changes and save the new data base.
- When you start ATLAS.ti the next time, the default user data base "hermencr.hdb" is loaded. To load the newly created user data base, select **FILE / LOAD DATABASE**.

Relaxed User Management

The default setting is "relaxed user management". This feature removes the password requirement for user accounts. The default setting can be changed by editing the central configuration file for ALL users, *ATLAS.INI*. This file can be found in the common application data folder. You need Windows administrator rights to be able to modify this file. To access the file for modification:

Changes to *ATLAS.INI* affect all computers in a networked environment.

- Select **TOOLS / EXPLORER / COMMON APPLICATION DATA**.
- Make a backup copy of *ATLAS.INI* file.
- Open it with a plain text editor (such as Windows Notepad).
- Look for the section: [lan] and set the variable "relaxedUserManagement" to either "enabled" or "disabled."

If relaxed user management is disabled, users need to enter their account password when logging in.

Settings in *ATLAS.ini* affect all clients in a networked environment. For any changes in *ATLAS.ini* to take effect, ATLAS.ti has to be restarted.

Merging Hermeneutic Units

The Merge Tool reunites HU's that were originally divided for analytical or economical reasons. Its main purpose is the support of teams. It links together the contributions of different members of a research team. A common scenario is the analysis of different sets of documents by different team members, sharing a common code base. Of course, the single researcher can also benefit from this function using the merge facility to help organize large projects.

Examples Of Application

Text Corpus Reuse

With only PDs to add and everything else IGNORED you can transfer all documents from any HU into a freshly created, or already existing HU. The PD comments and any existing quotations are also transferred.

Theory Import

With only codes, networks, and code families selected, a "theory" can also be migrated to another HU. This is similar to the current "Import Networks" feature, but also migrates Network Views and code families.

Team Work

Add codes, unify PDs: This would be the strategy when the same set of PDs is utilized by different team members using different codes.

Unify codes, add PDs: Different PDs were distributed to team members using the same set of codes, or mainly the same set of codes. Codes that are different from the common set are not lost but added.

Main Concepts Of Merging

Target And Source HUs

The main concepts in Merge are the *Target HU* and the *Source HU*. The Target HU is the HU into which another Source HU is merged. The target HU has to be loaded into the HU Editor before invoking the Merge HUs option. It is advisable to save the target HU under a different name before starting the merge procedure.

To prevent accidental overwrite of an existing HU, you may create a new HU first or save the currently open HU under a different name.

Merge Strategies

Three "strategies" can be chosen for the processing of every object category. These are "Add," "Unify," and "Ignore." The object categories that can be processed within the HU are PDs, Quotations, Codes, Memos, PD Families, Code Families, Memo Families, and Network Views.

Add: The objects of this category are added to the target HU. If an identical object is found in the target, the added object will get a new name consisting of the original name plus the suffix "_number". A new number is added until the name of the object is unique. For instance, if a code "Alchemy" already exists in the target, the source version of "Alchemy" is renamed to "Alchemy_1".

Unify: Searches for corresponding objects in the target HU. If such an object is found, all attributes of the source object are "inherited" by the target object. A corresponding quotation is one that resides in the corresponding primary document AND that has the same start and end position.

In this procedure, attention is paid to deviations between two PDs to be merged that may result in a corrupt PD with misaligned quotations.

While most other objects are unified via their name, PDs are treated differently. A PD from the source HU is unified with a PD from the target HU if the following conditions hold:

- Both PDs have the same unique identifier (see “
- Both PDs refer to the same data source.
- If none of the PDs can access its data source, the test uses ID and revision equality only. Thus, HU files can also be merged if the data source files are not available.
- If two PDs found to be the same but at a different revision status, the PD with the older revision status is synchronized.

Ignore: Instances from ignored object categories are not transferred during the merge process. For a finer grained exclusion you can use the "ignore" families option (see next).

"Ignorant" families: To exclude specific objects from the transfer (such as private memos, test codes, etc.), you would create a special family with the name "!MERGEIGNORE" into which you can move items to be excluded. This can be done for all three family types.

Two PDs are considered equal for unification when three conditions hold.

Use specially named families for fine-grained control over items to be ignored.

How To Merge Hermeneutic Units: General Procedure

When merging two HUs, the Merge Wizard guides you through the procedure. In the first step, the source HU is selected. Next, a merge strategy is chosen and possibly fine-tuned.

Select A Target And Source HU

Load the target HU. It is advisable to save it under a different name, so that you don't corrupt the original file in case something goes wrong.

From the HU Editor's main menu, select **PROJECT / MERGE WITH HU**. Alternatively you can drag an HU onto the HU Editor's caption holding down the CTRL key. The Merge Wizard opens, guiding you through the merge procedure.

The first page of the Merge Wizard displays the current target HU (i. e., the one that was loaded first), requesting you to enter the source HU's file name:

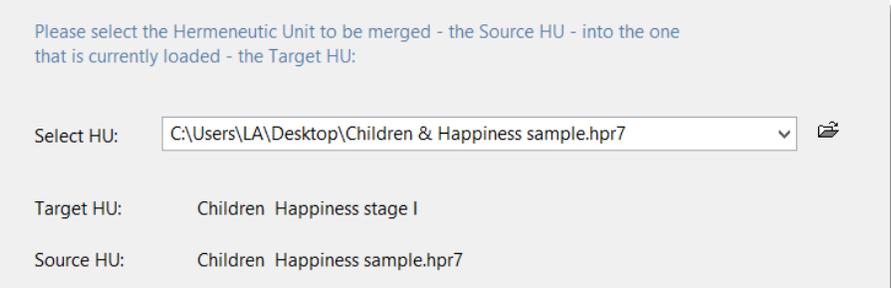


Figure 18: The Merge Wizard - select a Source HU after loading the Target HU

Click on the browse button and select a source HU from the file dialog.

Click the **NEXT** button. The source HU is loaded and you can proceed with the next step.

If the merge procedure was initiated by drag & drop, the source HU is already entered into the source entry field. You can immediately proceed by clicking on the **NEXT** button. Next, you need to choose a merge strategy.

Choose A Merge Strategy

The second step is the selection of *how* the source HU is to be merged into the target HU. Four broad, predefined strategies are available that can be customized in a second step. Object classes can be selectively added, unified, or ignored (see "Main Concepts Of Merging" above).

Select one of the four stock strategies. A short description of the strategy is displayed at the bottom left of the dialog box.

Fine-tune the strategy so it best suits your needs. For all major object types, you can divert from the predefined stock strategy and manually define how the various object types are to be handled in the merge process.

The Merge Wizard offers a variety of options to set the merge strategy for every object type.

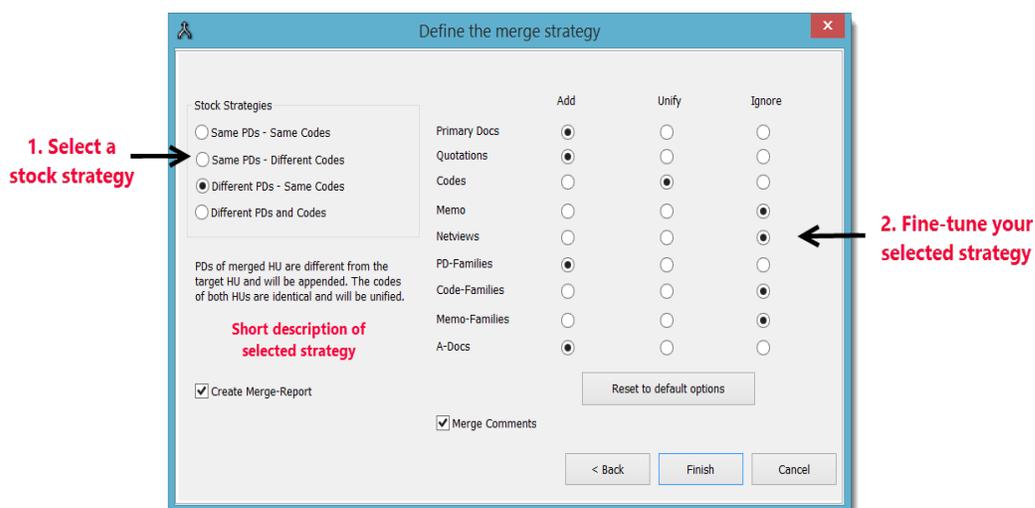


Figure 19: Merge Tool: Select a stock strategy and fine-tune your selection

The Merge Wizard offers a variety of options to set the merge strategy for every object type.

Same PDs and Codes: Choose this strategy when PDs and codes are (mostly) the same in the target and source HU. All of the same PDs and codes are then unified. Different PDs and codes will be added.

Same PDs – Different Codes: Choose this strategy when target and source HU contain the same PDs, but different set of codes. If identical codes are found during the merge procedure, the duplicate codes from the source HU are automatically renamed by adding a numeric suffix.

Original code name: Alchemy

Duplicate code: Alchemy_1

Different PDs - Same Codes: Choose this strategy when target and source HU contain different PDs that have been coded with the same code set. This is a common situation when working in teams and different team members have coded different PDs using a common set of codes. If a few additional codes have been added to the common set, these will be added.

Different PDs and Codes: Choose this strategy when both PDs and codes are different. The PDs and codes from the source HU will be added to the ones in the target HU. If identical codes are found during the merge procedure, the duplicate codes from the source HU are automatically renamed by adding a numeric suffix as shown above.

Check the option "Create Merge Report" to generate an overview of what has been done. The report lists all added and unified objects and their old and new names. Statistics about the source and target HUs and the resulting merged HU are created. The report will be opened in a rich text editor after the merge process is completed (see "Merge Report" for details).

Click **FINISH** to start the merge process. This may take a while depending on the size of both the target and source HUs and the strategy chosen. The Unify strategy is generally more consumptive in processing time than adding objects.

If you repeatedly merge the same HUs, deactivate the option "Merge Comments" as this may unnecessarily blow up the comment for any of the unified objects and leads to multiplications of entries.

Special Considerations For HUs That Use A Project Library

As project libraries are an option for projects that contain sensitive data, the software prohibits that HUs that use a project library are merged into HUs that use My Library or linked documents. It is however possible to merge an HU that uses My Library into an HU that uses a project library.

If one of the HUs to be merged uses a project library, use this HU as target.

Combinations that are not allowed:

- Target HU uses My Library and source HU uses a project library
- Target HU uses linked documents and source HU uses a project library

Combinations that are allowed:

- Target HU uses a project library and source HU uses a My Library
- Target HU uses a project library and source HU uses linked documents
- Target HU uses a project library and source HU uses a project library

If the source HU uses My Library or another project library, all documents will be copied to the project library of the target HU during the process of merging. Linked documents remain linked.

If you are unsure which library is used by the HU, open the P-Docs Manager and look at the column 'Location'.

After The Merge

After a successful merge operation, some "cleaning up" might become necessary. For example, codes with different names but similar meaning (i. e., synonyms) are now treated as distinct codes. They may need to be merged. It could also be the case that you end up with a number of quotations that overlap but are coded by the same code(s). Such instances can be found with the help of the Coding Analyzer.

The Merge Report

If you have checked the option "Create Merge Report" in the Merge Wizard (default), a report generator keeps track of every object affected during the merge process.

The report displays:

- the name and location of the source and target HUs

- object statistics and merge strategies for source and target HUs
- added objects sorted by object type (prefixed with a "+")
- unified objects sorted by object type (prefixed with a "=")
- statistics for the resulting HU

Below, excerpts from a merge report are shown resulting from merging "The Sample" HU with itself using the strategy "Different PDs Same Codes". During this merge, PDs, quotations and PD Families are added; and all codes are unified.

The first part of the report provides an overview of the selected merge strategies.

Object Type	Source-HU	Target-HU	Strategy
Primary Docs	22	22	Add
Quotations	458	456	Add
Codes	79	79	Unify
Codings	523	523	-
Memos	21	21	Ignore
Network Views	3	3	Ignore
Primary Doc Families	14	14	Add
Code Families	13	13	Ignore
Memo Families	0	0	Ignore
Code-Links	23	22	Target
Hyper-Links	31	29	Target

Figure 20: First part of the merge report: An overview of the selected merge strategies

Added Objects

When objects are added that have identical names in both the source and target HUs, the added object is renamed using an incremental numbering scheme. Note that the PDs are not renamed. This is because the prefix "P x" is a part of the name, making equally named PDs distinct.

```
Adding 22 Primary Documents:
```

```
-----
+ P23: 1_Jack the Ripper Story Introduction.mp3
+ P24: Transcript: Jack the Ripper Introduction
+ P25: 1_Jack the Ripper_Story.rtf
+ P26: 1_Jack the Ripper_Letters.rtf
+ P27: 2_Victim_Mary_Ann_Nichols.pdf
+ P28: 2_Victim_Annie_Chapman.pdf
+ P29: 2_Victim_Annie_Chapman_scene of the murder_1967.wmv
+ P30: 2_Victim_Elizabeth_S...pdf
+ P31:
+ P32:
+ P33: Murder_sites in Google Earth (GE)
+ P38: Victims' Circle (GE snapshot)
+ P39: Victims_location of murder.doc
+ P40: Site: Second Murder_1
+ P41: Site: Second Murder_2
+ P42: Site: Second Murder_3
+ P43: Site: Second Murder_4
+ P44: Site: Second Murder_5
```

Figure 21: Added primary documents using a unique identifier in form of the PD number

The imported PD families are renamed using the numeric suffix "_1".

```
Adding 14 Primary Doc Families:
```

```
-----
+ Description of Victims +> Description of Victims_1
+ Investigaton (all files) +> Investigaton (all files)_1
+ Investigaton: audio files +> Investigaton: audio files_1
+ Investigaton: video files +> Investigaton: video files_1
+ Jack the Ripper_stage II +> Jack the Ripper_stage II_1
+ Murder sites +> Murder_sites_1
+
+ Type of data: images +> Type of data: images_1
+ Type of data: PDF +> Type of data: PDF_1
+ Type of data: Transcripts (internal documents) +> Type of d
+ Type of data: Video files +> Type of data: Video files_1
```

Figure 22: Names of added primary documents

Unified Objects

Unified codes are displayed along with their new quotation references within the resulting HU:

```

-----
Unifying 79 Codes:
-----
= *date of murder
    25:41, 25:42, 25:43, 25:44, 25:45, 25:46, 25:47, 25:53
    25:58, 25:64, 25:67, 25:75, 25:80

= *historic context
    25:7, 25:8, 25:48, 25:99

= *name of suspect
    25:85, 33:5, 33:8, 33:9, 33:10, 33:11, 33:12, 33:13
    33:15, 33:17, 33:23, 33:26, 33:29, 33:31, 33:33, 33:36, 33:42
    33:44, 33:47, 33:50, 33:53, 33:57, 33:64, 33:67, 33:72, 33:142
    33:146, 33:159

= *name of suspect: Cohen
    33:163, 33:164, 35:21, 35:27, 35:34, 35:35

= *name of suspect: ...
    32:12, 32:13

= victim_last hours and death
    27:2, 28:4, 30:2, 31:4, 32:2, 32:7

= victim_marriage / children
    27:4, 28:5, 30:4, 31:5, 32:3, 32:5
    
```

Figure 23: Report on unified codes

Statistical Summary

The statistical summary at the end of the report provides an overview of all object types after the merge.

Object sizes per object type after merge:

Object Type	HU after merge
Primary Docs	44
Quotations	914
Codes	79
Codings	1046
Memos	21
Network Views	3
Primary Doc Families	28
Code Families	13
Memo Families	0
Code-Links	23
Hyper-Links	29

Figure 24: Statistical summary at the end of the merge report

```

-----
Unifying 79 Codes:
-----
= *date of murder
    25:41, 25:42, 25:43, 25:44, 25:45, 25:46, 25:47, 25:53
    25:58, 25:64, 25:67, 25:75, 25:80

= *historic context
    25:7, 25:8, 25:48, 25:99

= *name of suspect
    25:85, 33:5, 33:8, 33:9, 33:10, 33:11, 33:12, 33:13
    33:15, 33:17, 33:23, 33:26, 33:29, 33:31, 33:33, 33:36, 33:42
    33:44, 33:47, 33:50, 33:53, 33:57, 33:64, 33:67, 33:72, 33:142
    33:146, 33:159

= *name of suspect: Cohen
    33:163, 33:164, 35:21, 35:27, 35:34, 35:35

= *name of suspect: [redacted]
    32:12, 32:13

= victim_last hours and death
    27:2, 28:4, 30:2, 31:4, 32:2, 32:7

= victim_marriage / children
    27:4, 28:5, 30:4, 31:5, 32:3, 32:5

```

Figure 25: Report on unified codes

Trouble-shooting After Merging

Below you can find solutions for some common issues that occur during or after merging.

PDs Are Added Rather Than Merged

Explanation: If you add documents to a project, the data source files are copied into the selected library. In your ATLAS.ti HU you see “primary documents” - these can be thought of as containers for your data source files. In addition to the reference to the data source, these containers have a name, an author, a creation and modification date, etc., basically all the information you see in the PDocs Manager. Plus, each primary document (PD) has a unique fingerprint (which you do not see). It is generated when adding the data source to an HU.

The advantage of this is that ATLAS.ti can precisely identify each primary document and for example the order of primary documents in your HUs do no longer play a role when merging. The often overlooked consequence, however, is that if you add the same data sources to a different HU (on the same or a different computer), the fingerprints will be different.

This means when merging these HUs, ATLAS.ti does not recognize the primary documents as being the same - due to their different fingerprints - even though their content is the same.

Solution: In case after merging you ended up with two or more rather than one primary document and you are sure their content is the same, do the following:

Select the two primary documents in the Primary Document Manager (by holding down the Ctrl-key).

From the **MISCELLANEOUS** menu (document manager menu or context menu) select the option **MERGE SELECTED PDS**.

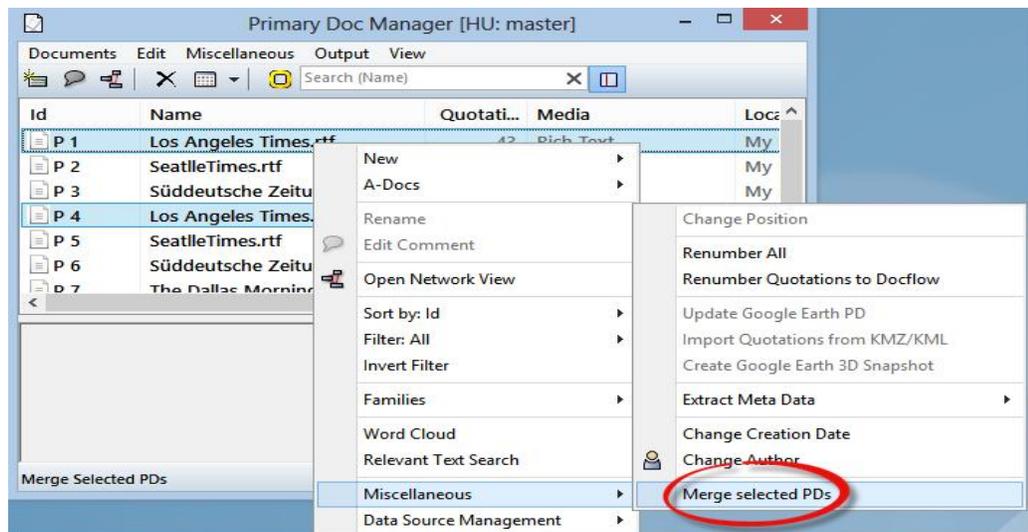


Figure 26: Merge duplicates

Another window opens. Select whether you want to add or unify quotations and whether to merge comments. In case you accidentally ended up with two primary documents for one data source, you need to select “Unify” (Quotations) option.

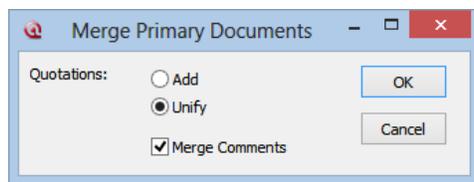


Figure 27: Further merge options

The “Add” (Quotations) option is useful if you want to compare the coding of two coders for inter-coder reliability purposes.

Make your selection and click **OK**.

In order to avoid this problem in the future, please proceed as follows when setting up a team project where all team members use the same data sources:

One person in your team needs to setup the project - adding all needed documents, creating a copy bundle file and distributing the copy bundle file to all team members. See also "Setting up Team Projects."

Conflict Resolution For Links

For certain entities, a default "conflict resolution strategy" is used. If the inclusion of objects could result in the modification of a "link" between objects in the target HU, the target HU link is preferred. Example: If there is a link "is-associated-with" between two codes "Alchemy" and "Gold" in the target HU, and a conflicting link "is-contrary-to" exists between the corresponding source HU codes, then the link in the target HU "wins". However, if *no* link exists between two objects in the target HU, the link existing in the source HU is transferred. This strategy is also pursued for hyperlinks and other connections between objects.

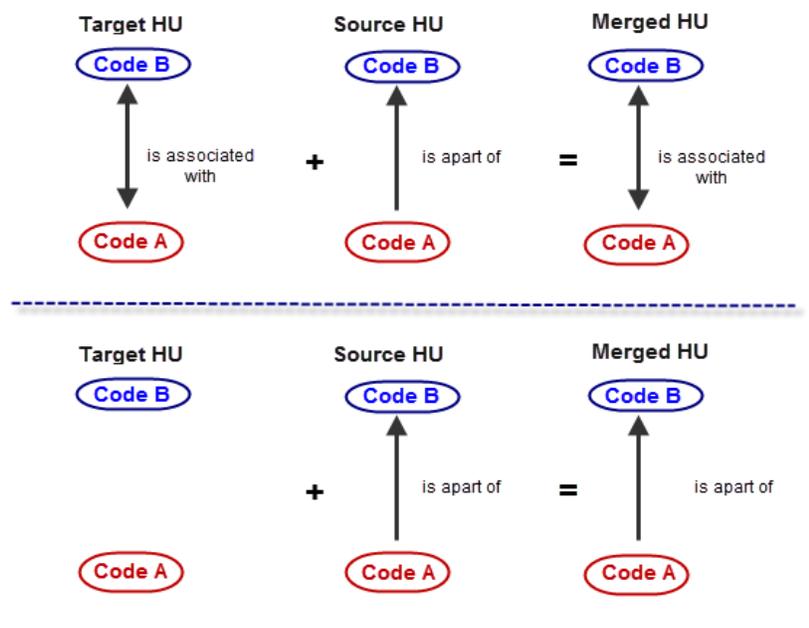


Figure 28: Merging HUs: Link resolution - The link between Code A and Code B in the target HU survives the merge process.

Co-authors are also merged.

Migration Of General Features

The comment of the source HU is appended to the target, and the list of co-authors in the target is completed with those in the source HU.

Special Considerations For Quotations

Quotations play a special role because they cannot be handled independent of the PDs. When PDs are ignored, so are quotations. When PDs are added, quotations are added. The interesting case is when PDs are unified: you can then select either UNIFY or ADD.

Add quotations if you want to calculate inter-coder-reliability.

ADDing quotations will create *duplicate* quotations in the target PD, even if a matching quotation already exists. This is a useful option if you want to calculate inter-coder reliability (see CAT, a free online tool that allows you to calculate intercoder-reliability. You can access the tool via **HELP / MORE RESOURCES / THE CODING ANALYSIS TOOLKIT**).

Merging Scaled Codes

When variable codes with a special naming convention are added during the merge process, their values are invalidated in case of name clash. The reason for this is that imported codes with an identical name are automatically renamed using a numeric suffix.

Note that before applying the SPSS job generation feature on the resulting HU, such codes would need to be manually renamed.

A Few Additional Considerations

You can *unify* codes, but *add* Network Views. This results in a new network containing the same nodes as those already contained in the target HU's network.

Adding nodes and unifying networks could result in an existing Network View being crowded with both the nodes from the target and the source HUs.

Unifying Super Codes combines their queries using the OR operator.

Test merge effects by experimenting with sample HUs.

To get acquainted to the effects of either adding or unifying entities, you should experiment with the various strategies using sample HUs. Observe what happens. Before modifying serious projects, you should gain some understanding of how the merging process works.

Project Backup

Please also see the following document for a summary description:
http://downloads.atlasti.com/docs/howto_v7_project_backup.pdf

HU Backup

Automatic Backup When Saving

The default setting is that ATLAS.ti creates a backup copy of an existing HU before overwriting it on Save. Backup files have the same name as the HU file plus an additional extension:

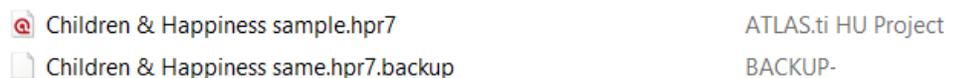


Figure 29: Current HU file and its backup

If the full file extensions are not displayed on your computer, you recognize the backup file by its file type (BACKUP-file) and the white icon:

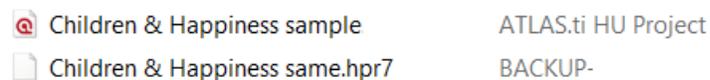


Figure 30: Current HU file and its backup if you do NOT see file extensions

In case you need to continue to work with the backup file, e.g. because you lost your HU file, you simply need to rename the backup file by removing the extension “backup”. If you do not see the full file name as shown in Figure 30, right-click on the file, select Properties and rename the file in the properties window.



To change the default setting, select **TOOLS / PREFERENCES / GENERAL PREFERENCES**, Tab: **STORAGE** from the main menu, or click on the **Preference** button in the main tool bar.

Keep both the regular backup and the automatic recovery backup on!

Crash Recovery

As the HU backup file is only created from the last saved version when saving the current version, this functionality would not protect you from losing the work you completed since the last save in the event of abnormal termination of the program, e.g., caused by system crashes or power failures.

For such situations, an automatic periodic backup feature is provided that will store recovery information every 20 minutes (or a period of time you can set via **TOOLS / PREFERENCES / GENERAL PREFERENCES**, Tab: **STORAGE**. It is strongly recommended to keep this feature on.

Should ATLAS.ti or Windows crash or in any other way be terminated irregularly, the amount of work lost is only the work conducted since the last recovery backup (or regular save). When quitting ATLAS.ti or after saving the HU, the recovery backup file is removed automatically.

If you experience long delays at the scheduled auto-saving times when working with large HUs, increase the time intervals rather than turning this option off!

When you restart ATLAS.ti after a crash, it will ask you if you want to load a recovery backup of your HU if this backup is indeed newer than the one you last saved.

Any pending changes in open text or Network Editors are not saved by the recovery backup feature. Saving such changes from time to time will preserve these changes.

Backing Up The Entire Project

The Copy Bundle function lets you make a copy of your entire project, i.e. the HU and all associated files, packed as a single file. As such, it serves a dual purpose: Portability (to transfer a project to another location), and data security (a powerful backup & restore device).

Copy Bundle is a powerful tool. By inspecting the HU, it finds and collects all files that make up the project. It checks the accessibility of the data sources and

provides feedback in problematic situations. From all the project files it compiles a single compressed file. On a target computer, “installing” a bundle distributes the HU, the data source files, and all associated files to appropriate location(s).

Copy bundle files can be recognized by a special icon (an ATLAS.ti project in a box) and the file extension atlcb (see Figure 31).

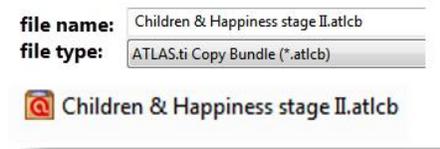


Figure 31: File extension and icon for ATLAS.ti 7 copy bundle files

The Copy Bundle Tool

There are two options to save a project as copy bundle file and to unpack a copy bundle file. You find both options under the **PROJECT** menu: **PROJECT /SAVE COPY BUNDLE** and **PROJECT / UNPACK COPY BUNDLE**.

A copy bundle file contains your HU plus all data sources that you have added to your ATLAS.ti project. It is the best and safest way to save your project. If you want to have a full backup of your project on an external drive or another computer, use the Copy Bundle tool--saving the HU file alone is not sufficient for secure storage. The HU file represents your entire project only in rare cases (i. e. only if you work exclusively with internal documents). In the vast majority of cases you will need a copy bundle file to backup or to transfer your project in its entirety.

The bundle tool is separated into two list panes and one report pane (see Figure 32 below).

Before creating a copy bundle file, you can specifically exclude documents that should not be in the bundle, e.g., unchanged (or even non-editable) large documents (e.g., video, audio files) that have already been carried to the target system via other means or with a previous Copy Bundle.

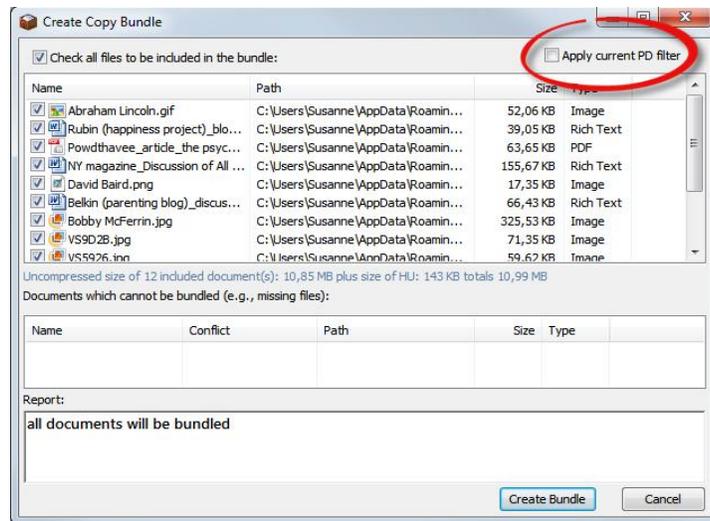


Figure 32: Copy Bundle Window: Pack & Go

The first list shows **all documents** that will be **included in the bundle**.

The second list pane displays all **documents that cannot be bundled**: This list displays documents that are excluded by the system because of an irresolvable conflict. If all PDs in the HU can be displayed in the HU Editor, there should be no conflict when bundling the HU.

The following conflicts may occur:

- *Source Missing Conflict*. The document does not exist.
- *Source Unusable Conflict (only applies to linked documents)*. The document cannot be loaded. Possible cause: A linked document was manually copied from another location without its associated LOG file using Windows copy method.
- *PD Source Conflict (only applies to linked documents)*. Mismatch between PD and its source. This implies that a linked data source is not the one that is expected by the PD. Possible causes: mapping changed, data source was replaced by another file, LOG file was edited manually.
- *Ambiguous Reference Conflict (only applies to linked documents)*. A linked data source is used by more than one PD but was assigned using different paths.

Report: In the report pane, the situation before creating the copy bundle file is summarized. This includes a list of all excluded documents and the reason for their exclusion.

How To Create A Copy Bundle

- Save the HU.
- Select **PROJECT / SAVE COPY BUNDLE** from the main menu. The Copy Bundle window opens (see Figure 32). All documents that can be bundled are listed in the top right pane.

Check the report pane. If everything is as it should be, click the **CREATE BUNDLE** button.

A standard file dialog window opens:

Select a location where the bundle file should be stored.

Enter a name for the bundle file or accept the suggested file name. The file extension `atlb` (for `ATLAS.ti copy bundle`) is automatically appended.

Click **SAVE**.

There is no need to create a copy bundle file if your project only contains internal (embedded) documents. This is for instance the case of you import survey data.

Creating Partial Bundles

There are two options to create a partial bundle file – you can select documents to be ex- or included in the Create Copy Bundle window, or make a select of documents in the P-Docs Manager.

In the Create Copy Bundle window:

Option A: Exclude documents by clicking on the check boxes in front of each document.

Option B: Set a PD family as *global* filter before opening the copy bundle window and check the "*Apply current PD filter*" option at the top left of the Create Copy Bundle window.

Via the P-Docs Manager:

Open the P-Docs Manager and select the documents that you want to include in the bundle.

Right-click and select the option **DATA SOURCE MANAGEMENT / BUNDLE SELECTED PDS**.

Creating a partial bundle files does **not** mean that the documents that have not been included in the bundle are removed from the project. If you unpack a partial bundle file, you will still see the list of all primary documents in the primary document manager. However, you will only be able to open those files that were included in the bundle. The other entries remain gray.

How To Unpack A Copy Bundle

- Select **PROJECT / UNPACK COPY BUNDLE**.
- Select a copy bundle file and click **OPEN**. The following window opens:

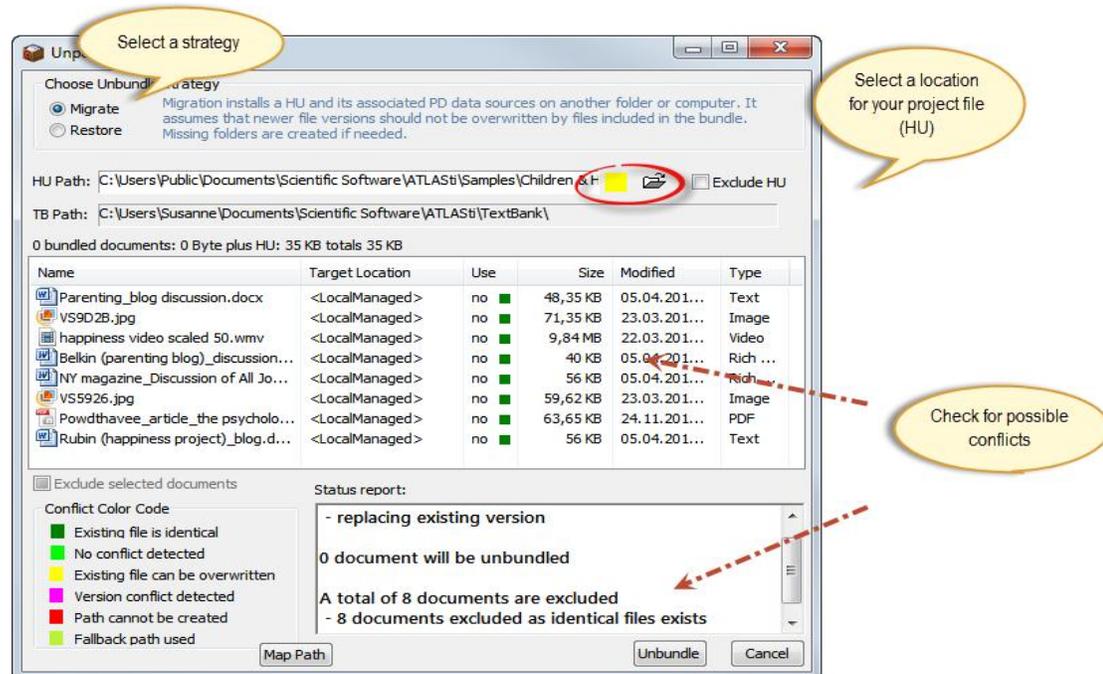


Figure 33: Copy Bundle Install window

- Select an unbundling strategy. In most cases it will be “Migrate” (see “Unbundling Strategies” below).
- Select a location for the HU file by clicking on the file loader icon at the end of the field HU Path (see Figure 33 or Figure 34).
- Click on the button **UNBUNDLE**.

When you select the option Unpack Copy Bundle, ATLAS.ti checks whether the documents in the bundle are already in your library. If this is the case, then you see the entry “0 documents will be unbundled”. There is however nothing to worry about. ATLAS.ti will tell you that the documents are excluded because identical files already exist (see Figure 33).

If your HU only contains internal documents, you will also see that 0 documents will be unbundled. In this case, there is nothing to unpack as the documents are stored in the HU file. Thus, creating a copy bundle file was not really necessary.

UNPACKING PROJECTS WITH PROJECT LIBRARIES

If the HU packed in the copy bundle file uses a project library, which does not yet exist on the target computer, you will be asked to specify a location for the project library before the copy bundle file can be unpacked.

Unbundling Strategies

"Unbundling" is the term we have adopted for unpacking (or extracting) the compressed archive containing the HU and its associated files at the new location. The installation of a bundle on the same or a different computer can be done using two slightly different strategies: Migrate and Restore.

Choose the "Migrate" strategy when moving projects between two work locations.

MIGRATE

The "Migrate" strategy assumes that the bundle is to be installed on another computer or another disk in order to resume work at this different location. The target path for the HU can be freely chosen. When checking for conflicts, this strategy accepts that older versions of data source files are replaced by newer versions. If a document in the bundle is older than an existing one at the new location, it will not be unbundled. This prevents a document from replacing a newer version of it.

Use the "Restore" strategy when installing a bundle that was created as backup copy.

RESTORE

The "Restore" strategy is used to restore a bundle created as a backup of a project, i.e., an HU and all the data source files referenced by its PDs. This strategy restores the HU in exactly the same folder as at the original location. It does not reject an attempt to replace a current file with an older version – which is indeed the very nature of "restore."

Paths

Below the strategy selection section, the original path of the HU is displayed. A color marker next to the path indicates possible conflicts for this HU, if it were to be installed in the target environment.

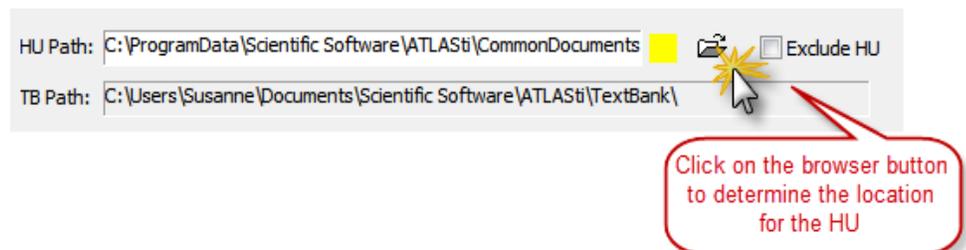


Figure 34: Selecting a location for the HU file

Click on the **Browse** button to select the location where the HU file should be stored on the target computer.

If you transfer a project to a different computer, most likely you will need to change the location. If you use the bundle file as backup and want to install the backup on your computer, there is probably no need to change the location.

A check box lets you exclude the HU itself from the installation.

Below the HU path, the TBPATH of the target computer is displayed. The TBPATH is the default location for storing ATLAS.ti project files and can be set under **TOOLS / PREFERENCES / GENERAL PREFERENCES**, tab: Paths. This pane is not visible in Restore mode.

The list of documents included in the bundle can be sorted with a click on the column header: The following information is provided:

- Name of the document
- Target location of the document.
- A field indicating if this document is used when unpacking the bundle. It also contains a small colored box indicating a possible conflict (see "Conflict Color Code" below).
- Size (the total of the file sizes of the document file and its optional auxiliary files).
- Last modification date
- Document type

Report Pane

The report pane in the lower right of the Install Bundle window displays a dynamic report of the documents about to be unbundled.

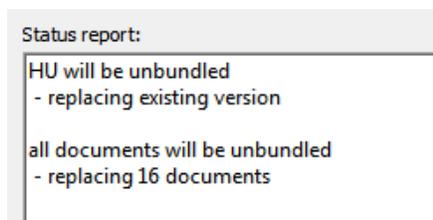


Figure 35: Status report in the copy bundle window

Conflict Color Code

Possible target conflicts are indicated by the colored square in the 'Use' column.

Color Code	Description
 Existing file is identical	Dark Green indicates that file already exists in the library. The Target Location is indicated as <LocalManaged>.
 No conflict detected	Light Green is on for every document that can be installed without overwriting an existing version
 Existing file can be overwritten	Yellow: A compatible file was detected; replacing this file does not harm the integrity of the HU. Other HUs accessing this document will be synchronized when needed.
 Version conflict detected	If you unpack a document with this magenta marker, other HUs with references to it may no longer be able to access it. Such documents will not be extracted in Migrate mode. You can, however, include these documents in Restore mode.
 Path cannot be created	Red: If a path does not exist on the target computer, it is created when installing the bundle file if possible.. However, not every path can be created. If you install a bundle on your personal computer and a Z drive is required, ATLAS.ti can not create this drive on your computer. If you see a red box, you either need to change the location for the HU file in the HU Path field (see above), or you need to map the path (see below for further information).
 Fallback path used	A document is marked light green , if an otherwise irresolvable path could be resolved via fallback redirection, i.e. HUPATH or TBPATh. This only applies if linked documents are included in the bundle.

Path Mapping (Only Needed For Linked Documents)

You need to map a path, if the original path of a file on the source computer cannot be created on the target computer. This is likely to be the case when a project was set up with absolute path references on a network drive that cannot be accessed by the target computer.

Such a conflict can be resolved by mapping the non-existing path:

- Click on the **MAP PATH** button included in the Install Bundle window. This opens the Path Map Editor.

Enter a path to be mapped:

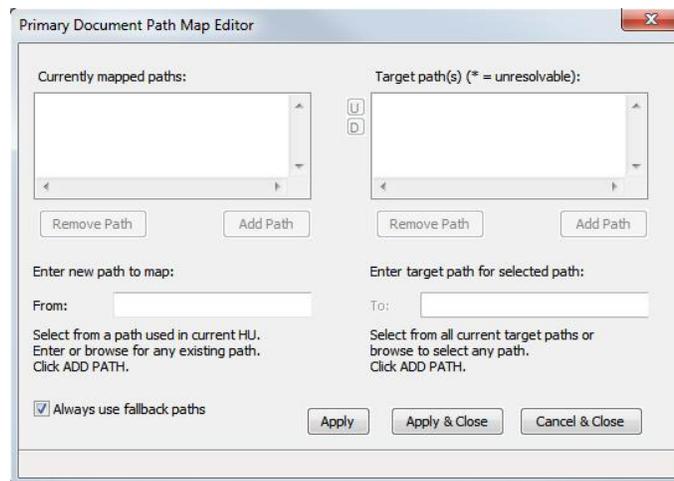


Figure 36: Document Path Map Editor

Into the 'From:' entry field on the left side of the Path Map Editor, type in either the full path, select a path from the drop-down list, or click on the file browser symbol. Generally, useful options (non-accessible paths used in the current HU) are already offered in the drop-down list.

Once a path is entered or selected, click on the *Add Path* button. The path will be added to the list of currently mapped paths.

Now enter (or choose from the drop-down) a replacement path into the 'To:' field on the right side of the Path Map Editor in the same fashion:

Click on the *Add Path* button.

Repeat the above steps for every path to be mapped.

Press *Apply & Close* to store and activate the new mapping(s).

REDIRECTION: FALLBACK

The option 'Always Use Fallback Paths' is activated by default in the mapping tool. If activated, the following happens: all irresolvable files are unbundled in the HU's folder, i.e., the folder where the HU (HPR7 file) is stored.

See the ATLAS.ti Version 6 manual for more detail on linked documents and special paths like the HU and TBPATh.

It is best to organize projects in ways that use absolute path references as rarely as possible. This reduces the need to use PD Mapping.

Project Transfer

If you want to transfer a project to a different computer, you need to create a copy bundle file on computer A and unpack it on computer B (or location B).

There is no need to create a copy bundle file if your project only contains internal (embedded) documents. This is for instance the case if you import survey data. To transfer a project with embedded documents, you can simply make a copy of the HU file and open it on computer B.

Creating A Copy Bundle On Computer A

- Save the HU.
- Select **PROJECT / SAVE COPY BUNDLE** from the main menu. The Copy Bundle window opens (see Figure 32). All documents that can be bundled are listed in the top right pane.
- Check the report pane. If everything is as it should be, click the **CREATE BUNDLE** button.

A standard file dialog window opens:

- Select a location where the bundle file should be stored.
- Enter a name for the bundle file or accept the suggested file name. The file extension `atlcb` (for `ATLAS.ti copy bundle`) is automatically appended.
- Click **SAVE**.

Unpacking The Copy Bundle On Computer B

- Select **PROJECT / UNPACK COPY BUNDLE**.
- Select a copy bundle file and click **OPEN**. The Unpack Copy Bundle window opens (see Figure 33).
- Use 'Migrate' as unbundling strategy.
- Select a location for the HU file by clicking on the file loader icon at the end of the field HU Path (see Figure 34).
- Click on the button **UNBUNDLE**.

For further details see “The Copy Bundle Tool”, “Unbundling Strategies”, “Conflict Color Code” and “Path Mapping (Only needed For linked Documents)”.