Family Life

Just as codes describe sets of quotations, families cluster Primary Documents, Codes, and Memos. One important objective is to manage large amounts of objects by classifying them into subsets, e.g., all theoretical codes, all PDs from respondents of a certain age group or location, all memos related to a theme, etc.

Purpose Of Creating And Working With Families

In the following, the role of families as variables, super families and for controlling the HU merge procedure are introduced.

While families are used to classify a group of objects, the objects they classify can be members of more than one family.

Unlike Network Views, which can contain objects of different types as nodes, families can only contain one type of object. For example, a code can never be a member of a memo family.

Partitioning objects into families reduces the number of “chunks” requiring the researcher’s attention. Families are often used for filtering (see “Sorting and Filtering”), and when formulating queries in the Query Tool (see “Creating a Query with the Query Tool”). The side panels in the managers offer a convenient way to create them and to set them as local and global filters (see “The Manager Side Panel.”

Example: When conducting an interview study with respondents from various backgrounds and locations, PD families can be created to classify the respondents into:
- Female / Male
- Location A, Location B, Location C
- Age Group 1 (20-30), Age Group 2 (31-40), Age Group 3 (41-50)
- Blue-collar worker, White-collar worker, Management, etc.

Families make effective user-defined filters. For example, you can filter PDs to only view female respondents.

In the Query Tool, PD families can be used to restrict the scope of the search. For example, you can ask for all quotations coded by Code_A and Code_B that occur in documents of white-collar female respondents from location B.
The **PD-Family table** function provides a convenient way to import and export variables (see below for a detailed explanation).

**Code families** can be used to loosely group codes that belong together. You can use them to sort, filter and organize your codes in the Code Manager via the side panel.

Other than in Network Views where specific relationships between codes need to be defined, in code families it is not necessary to specify the ways in which codes relate to each other.

Use **memo families** to sort, filter, and organize your memos.

### Super Families

Super Families are combination of other families (including other Super Families). You can build complex families incrementally from existing families using a set of powerful Boolean operators. From a technical perspective Super Families function just like Super Codes (see “Super Codes”). They can either be created in the super family tool or in the side panels of Managers (see “Creating Super Families as Global Filters.”)

### Using Families When Merging Hermeneutic Units

A special application of families is used to specify the sets of objects to be excluded in the process of merging Hermeneutic Units (see “Merging Hermeneutic Units”).

### Common Procedures

Although the handling of families and their members is identical, their usage differs between types of families. In the following, the general aspects of and procedures for working with families are described. Thereafter, a description of specific characteristics of the different family types follows.

All procedures for displaying, editing, and creating families are found in the menus of their object type (i. e., under the Documents, Codes, and Memos menus).

Families can be created in both the Family Manager and the side panels of the respective Managers (see “The Manager Side Panel.” The Family Manager offers a few more options than the side panel. The side panels are however better integrated into the regular work-flow. Thus, for daily regular activities you are likely to use the side panels, for more selective operations the Family Managers.
The Family Managers

Using the Family Managers you can create, edit, and delete families. You can add and remove items (‘family members’), write comments concerning a particular family, or set a family as filter.

Components Of The Family Manager

The Family Manager’s main pane lists all families for the specific object type.

- The window displays the name, (member) size, author, and creation and modification dates (not currently visible). The columns can be used to sort the families according to these criteria by clicking the column header.
- The left list below the family list displays the “family members” already assigned.
- The two buttons between the list panes are for assigning or removing items from the selected family.
- The right list displays all items not currently assigned to the selected family.
- The comment area contains an optional description for the family.

To Open A Family Manager

Select **FAMILIES / OPEN FAMILY MANAGER** from the **DOCUMENTS, CODES, or MEMOS** menu.
The **Families** submenu is available from the Documents, Codes and Memos menu.

The Family Manager is also available by clicking the Family button in the corresponding Object Manager (see left).

### Creating Families

Before using a family, it must first be created in the Family Manager.

1. Open the Family Manager for PDs, codes, or memos.
2. Click the button **CREATE A NEW ITEM** or select the menu option **FAMILIES / NEW FAMILY**.
3. Enter a name when prompted and click **OK**. If you enter the name of an already existing family, you will hear an error sound. A message pops up letting you know that the entered name is not accepted.

Now you can add members and write a preliminary comment describing the family.

The number of items in a family is displayed behind the family’s name in parentheses.

### Adding Members

After a family is created, adding members is often the next logical step. However, the assignment and removal of items can be done at any time during the life cycle of a family. To add new items to a family:

1. Select a family. If you have just created the family, it is already selected.
2. Select one or more items in the list pane on the right hand side.
3. Click the **Add Items** button to make the selected items members of the selected family (see Figure 184).
4. If you want to add one item at a time, you can simply double-click an item.

![Figure 184: Adding members to a family](image_url)

Watch the member list being populated with the items you have just added.
Another way to add members is to drag them from an Object Manager, the HU Explorer, or the margin area into the member's pane.

Removing Members

Removing members is not possible in the side panels.

1. Open the Family Manager for the relevant object type.
2. Select a family.
3. Select one or more items in the list pane for members.
4. Click the Remove Items button to remove the selected items from the selected family. The items are only deleted from this family and not from the system.
5. If you want to remove one item at a time, you can simply double-click on each item.

If you delete objects that belong to a family somewhere else, they will be removed automatically from all their hosting families.

Assigning Families To Objects

The option **Edit Families / Assign Families** is another way of adding members to a family. This option allows you to easily assign suitable attributes to objects either selected in the Family Assigner or an Object Manager.

Assigning Families To Objects In The Family Assigner

1. Open the Family Assigner: ...
2. Select an object (in the example below, it is a primary document) in the top pane and then the appropriate families in the lower right hand side.
3. Click the **Add Items** button to assign the families to the selected object.
Assigning Families To Objects In Object Managers

Select any number of objects in an Object Manager by holding down the Ctrl-key.

Right click on one of the selected items and select Assign Families, or choose …/ FAMILIES / ASSIGN FAMILIES from the menu.

From the list of families that opens, select one or more families to which the selected objects are to be assigned.

Click OK.

Creating Families From Selected Items

Select any number of items in an Object Manager by holding down the Ctrl-key.

Right click on one of the selected items and select FAMILIES / NEW FROM SELECTED ITEMS.

Enter a name for the new family and click OK.

Accessing Quotations

To access the quotations related to the objects included in the family, double click on a family while holding the Ctrl-key.
Writing A Comment For A Family

The family comment can be used to describe why and for what purpose a family was created. This is especially useful when families are treated as attributes.

Creating Or Editing A Family Comment

- Open the Family Manager for the relevant object type.
- Select a family.
- In the text pane at the bottom of the window, write or edit a comment.
- Alternatively, you can open a full-fledged editor by clicking the Comment button in the toolbar.

Using Families As Filters

Access The Filter Options Via The Main Menu

One added value of families is that you can use them as filters. For example, if you have created a code family including only 'Abstract' codes, you can use this family as a filter to reduce the total number of codes displayed in the dropdown list in the Code Manager and the margin area.

Filter Items Using The Family Manager

- Open the Family Manager.
- Double-click a family. Watch how the display in the Object Manager and the margin area changes to display only items that are members of the selected family.
If a family is activated as a filter, the family icon is replaced by the filter icon. In addition, the background color of the affected lists changes. The active filter is also indicated in the filter field of the status bar in the Object Manager.

To take the filter out double-click on the family again, or select **Tools / Reset All Filters** from the main menu. A third option is to double-click on the filter field in the Object Manager while holding down the **Ctrl**-key.

Filter settings also affect network views. See “About this ManualWorking with Filters in Network Views.”
Removing Families

- Open the Family Manager for the relevant object type.
- Select the family to be removed.
- Click the Delete button or select menu option Families / Delete Family.

Removing a family does not remove any of the contained items.
Working With Variables: Primary Document Families

Along with sharing all the characteristics of code and memo families, PD families have some additional characteristics.

PD Families can be used to define the scope of a query when used as global attributes supplementing codes. For instance, if the PD families "female" and "age group 1 (21-30)" were assigned to a number of interviews, one can then formulate queries like: "Show me all quotations from interviews with females between the ages 21 to 30 coded with "coping" or "power." For a step-by-step instruction, see “Restricting Code Queries to Sub Groups.”

In SPSS jobs, PD families are a way to aggregate some of the data (see “How SPSS Export Handles Families”).

PD-Family tables are an efficient means to create families and to assign PDs to their respective families. You can also use them to assign PDs and to generate variables in one step.

**PD-Family Table**

PD-Family Tables can be exported or imported as tab-delimited (XLS) or as comma/semicolon separated value (CSV) files. All three formats can be read by Excel™ as well as OpenOffice Calc.

Below you see an example of an exported file. The coloring has been added for readability. Below each column header and content is explained.
Documents: The PD sequence number.

Name: The name of the PD.

All following columns: Primary document families.

PD families following the syntax ‘variable label::attribute value’ are converted in Excel into one variable with the column header ‘#variable label’. The attribute values are entered into the cells. For instance, the two PD families ‘Gender::male’ and ‘Gender::female’ are converted into the variable #Gender and the two values male and female. This is further explained below (“Type of Variables”).

Type Of Variables

Within ATLAS.ti, all families, when interpreted as variables, are dichotomous because an item may or may not belong to a specific family, thus it is encoded with either 0 or 1 / applies or does not apply.
By following a simple naming convention, PD families can be turned into nominal and categorical variables for the use outside of ATLAS.ti in statistical and other database applications.

Let’s assume that your respondents come from four different locations. To represent this in ATLAS.ti, you need to create four PD families, one for each location. Exporting these for families as PD-Family table to Excel, you get a table as shown above containing one variable per family with the values 0 or 1.

If you prefer just one variable for location rather than four, you need to follow the naming convention “Variable Name::Variable Value” when creating your PD families:

Location::Berlin
Location::London
Location::New York
Location::Tokyo

When exporting the PD-Family table, the result will be as follows:

![Table with Location Variable]

Figure 190: PD family table with a nominal variable for location

The table shows one variable for Location and the respective values as string: Berlin, London, New York and Tokyo. Note that the variable name is prefixed with a hash sign (#). This is the syntax that needs to be used when preparing a table for import (see below). The hash sign indicates to ATLAS.ti that this variable needs to be turned into multiple families.

Super Families In PD Family Tables

Super Families (see below) are treated like standard families. If you do not change the default name suggested by ATLAS.ti when creating super families, then they are prefixed by an asterisk (*). In the table below you see two super families combining the families for age group 1 and 2 with the family female.
Do not assign a PD to more than one family with the same variable name (e.g., both to Location::Berlin and Location::New York). ATLAS.ti allows this, as it treats every family as a separate dichotomous variable. However, when converted into a categorical variable “Location” in the process of creating a PD-Family table, such multiple assignments could create problems.

Preparing And Importing A PD-Family Table

Create the following columns when manually preparing a PD-Family table for import from a spreadsheet application such as Excel™:

First column: Use ‘Documents’ as the header and a PD number in subsequent rows.

Second column: Use header “Name” and enter a name for the PD in each row.

The next one or two columns: As already mentioned above, the document path is stored twofold when a table is created by ATLAS.ti: The actual path at the time of export (column Path) and the path at the time of the assignment of the document to the HU (column: @Origin). The latter can also contain special path components (<HUPATH>, <TBPATH>) that will be correctly resolved when imported into ATLAS.ti.

When reading a table into ATLAS.ti, the Path column has more or less descriptive character as the @Origin is always preferred. Therefore the Path column can be omitted when creating a table manually.

If neither the Path nor the @Origin column is defined, the name of the document is used as file reference in combination with the special <HUPATH>. In order to be able to access the data, you need to store the HU file and the documents in on common folder.

All following columns: Enter variable names and values, i.e. the document families into the subsequent columns. Novels
Categorical variables: For all categorical variables, use a hash (#) as the lead character, as in: #Profession, #Gender, etc. Enter the values as string.

Missing values: Missing values are indicated by a zero (0) and used for documents not assigned to any family.

If a field name or value contains characters resembling the separator for categorical variables, you need to enclose the name or value with quotation marks.

If the HUPATH setup (as the easiest and most flexible project setup) suits your needs, then an Excel table ready for import could look like this:

<table>
<thead>
<tr>
<th>Documents</th>
<th>Name</th>
<th>#gender</th>
<th>#profession</th>
<th>Reading novels</th>
</tr>
</thead>
<tbody>
<tr>
<td>P 1</td>
<td>case 1.rtf</td>
<td>male</td>
<td>teacher</td>
<td>0</td>
</tr>
<tr>
<td>P 2</td>
<td>case 2.rtf</td>
<td>male</td>
<td>police</td>
<td>1</td>
</tr>
<tr>
<td>P 3</td>
<td>case 3.rtf</td>
<td>female</td>
<td>teacher</td>
<td>1</td>
</tr>
<tr>
<td>P 4</td>
<td>case 4.rtf</td>
<td>female</td>
<td>teacher</td>
<td>0</td>
</tr>
<tr>
<td>P 5</td>
<td>case 5.rtf</td>
<td>female</td>
<td>police</td>
<td>1</td>
</tr>
</tbody>
</table>

Figure 192: An Excel table ready for import as PD-Family table

You simply enter the consecutive numbers for PDs, the document names and the variables.

Save the table as native Excel tab-delimited xlsx file or in csv format.

Open ATLAS.ti.

From the main menu, select DOCUMENTS/IMPORT/IMPORT/EXPORT/IMPORT PD-FAMILY TABLE. This option is also available from the Documents / Miscellaneous menu.

If you are importing into a new HU, a dialog opens, asking you to save the HU before proceeding. This is needed to be able to access “HU follower” documents using the special <HUPATH>:</HU>

Save the HU into the same folder where the documents are stored (unless you have entered an @Origin column with user defined path references).

Next a file dialog opens. If you are importing into an existing HU, the standard file dialog window opens immediately. Select the prepared xlsx/xlsx or csv file and click OK to start the import procedure.

If you import a native Excel file (tab delimited with the extension xlsx), the families are imported immediately. If you select an Excel compatible file format like csv, select the field delimiter: comma, semicolon, or tab.

Once the import is finished a message pops up informing you about the number of families that have been created.

Importing the above table, results in the following HU:
Five PDs with the names case 1 to case 5 were created, and they access their source document via the HUPATH. This means you need to store the HU file + the five Word documents in rich text format in a common folder as shown below.

If the PDs do not yet exist in the HU, new PDs are created and are assigned to the HU.

Adding new PDs: If your HU already contains PDs, you can add more PDs by importing a PD Family table. However, you must be sure that the new PDs are numbered consecutively. If your HU already contains P1 to P10, the numbers of the additional PDs in the documents column need to start at P11. If the document number and path reference do not match an existing reference, then this document is ignored and not assigned as a PD.

Based on the above example table, PD Family Manager shows the following families after importing the table:
Exporting A PD-Family Table

If the documents have already been assigned, exporting a PD-Family table is quite handy as a first step in preparing a table for import. This way ATLAS.ti creates the columns documents, Name, Path and @Origin for you and you do not have to retype the file names. The table can be exported even if no family has yet been created.

Select **DOCUMENTS / IMPORT/EXPORT / EXPORT PD-FAMILY TABLE** from the main menu. This option is also available in the PD Family Manager from the Families menu or the context menu.

You are prompted for a separator value. Click OK if you use the default value `::`. If you use a different value, change it accordingly.

Next, select the output format, e.g. `xls`, and click **OK**.

Finally, specify the output target as usual (see “Output Destinations” for details). For example, select **FILE & RUN** for the table to be opened in Excel or OpenOffice Calc immediately.

Code Families

In ATLAS.ti, the term “code family” is used to sort codes into named sets or groups. For example, if you have four categories that are types of actors you
can group them into a code family. Four members of the “actors” family might be friends, parents, siblings, and partner.

Creating Code Families From Network Views

This procedure assumes some acquaintance with the network view function (see “The Network Editor”). Creating a code family from a Network View’s code nodes might be useful when you need to print all quotations referenced by the codes in the Network View or to filter all codes contained in a Network View.

1. Open a Network View.
2. From the main menu in the Network Editor, select **Specials / Generate Family**.
3. You are prompted for a name. The offered default name is the name of the Network View. Accept the name or type in a new name and click **OK**.

Code Families Add Analytic Power In Queries

Code families can be used with codes to construct queries using the Query Tool. Families are interpreted in queries as if all its contained codes were combined using the Boolean operator OR. For example, a code family containing the four codes water, fire, air, and earth is interpreted in a query as ‘water OR fire OR air OR earth’.

Furthermore Code Families can be used as filters in combination with the Co-occurrence Tools. They are quite effective in focusing your attention to just the subset of data you are interested in. The Co-occurrence Tools are often used when you want to relate two code categories or two groups of codes to each other. Rather then running a query that contains all codes, you create a code family that just contains the codes that you are interested in, set it as filter (e. g. **Codes / Filter / Families**) and than run the Co-occurrence Tree or Table Explorer (see “The Code Co-occurrence Table”).

A third option is to reduce the number of codes displayed in a Codes-Primary-Documents-Table (see “Codes-Primary Documents Cross-Tabulation”) by setting a Code Family as filter. This is often combined with setting a PD Family as filter as well. This way, you export just the data you want to focus on, instead of producing a large Excel table that contains all documents and all codes.

PD And Code Families In SPSS Jobs

In addition to being used within ATLAS.ti, PD families as well as code families are used when creating SPSS jobs. Both PD and Code Families are a way to aggregate data in SPSS (see “SPSS Export” for further detail).
Memo Families

Memo families are useful for sorting and filtering your written reflections about the project. Memos can be separated by type such as theoretical or linguistic (see “Working with Memos”).

The procedures for creating and handling memo families resemble those for code families.