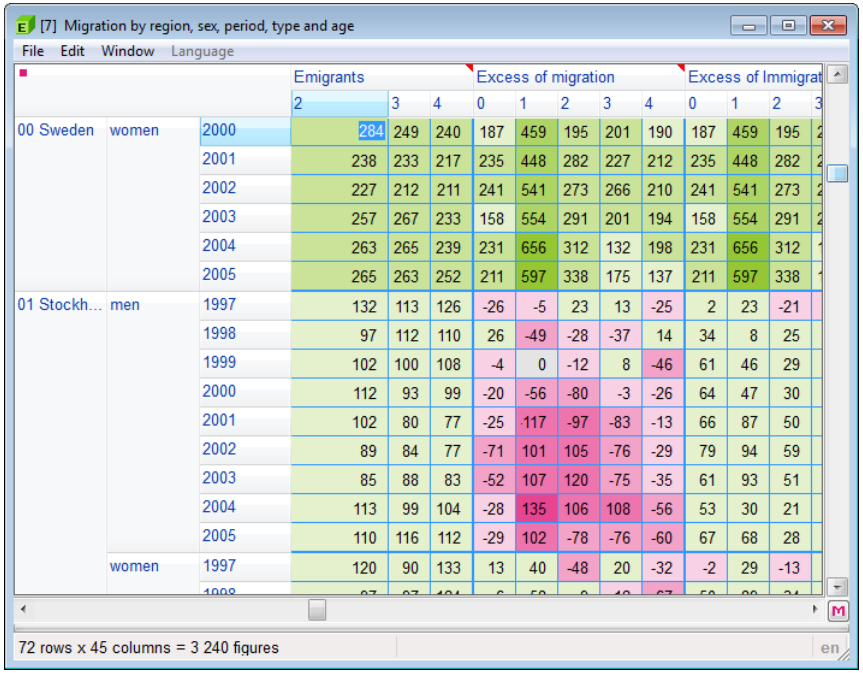
Statistics Finland

PX-Edit 3.2

Table editing

Table window

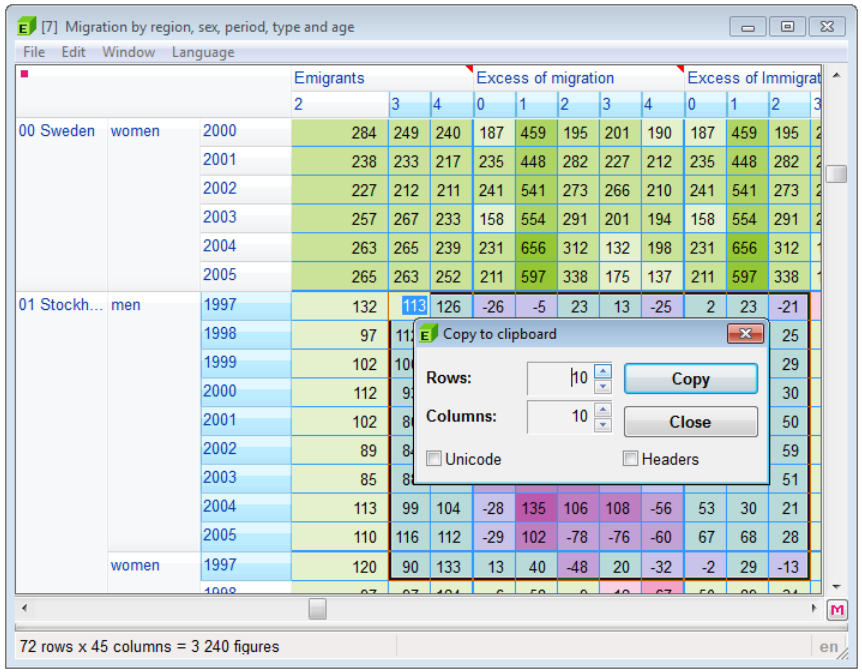
Table window



			Emigrants			Excess of migration					Excess of Immigrat			
			2	3	4	0	1	2	3	4	0	1	2	3
00 Sweden	women	2000	284	249	240	187	459	195	201	190	187	459	195	2
		2001	238	233	217	235	448	282	227	212	235	448	282	2
		2002	227	212	211	241	541	273	266	210	241	541	273	2
		2003	257	267	233	158	554	291	201	194	158	554	291	2
		2004	263	265	239	231	656	312	132	198	231	656	312	1
		2005	265	263	252	211	597	338	175	137	211	597	338	1
01 Stockh...	men	1997	132	113	126	-26	-5	23	13	-25	2	23	-21	
		1998	97	112	110	26	-49	-28	-37	14	34	8	25	
		1999	102	100	108	-4	0	-12	8	-46	61	46	29	
		2000	112	93	99	-20	-56	-80	-3	-26	64	47	30	
		2001	102	80	77	-25	117	-97	-83	-13	66	87	50	
		2002	89	84	77	-71	101	105	-76	-29	79	94	59	
		2003	85	88	83	-52	107	120	-75	-35	61	93	51	
		2004	113	99	104	-28	135	106	108	-56	53	30	21	
		2005	110	116	112	-29	102	-78	-76	-60	67	68	28	
	women	1997	120	90	133	13	40	-48	20	-32	-2	29	-13	

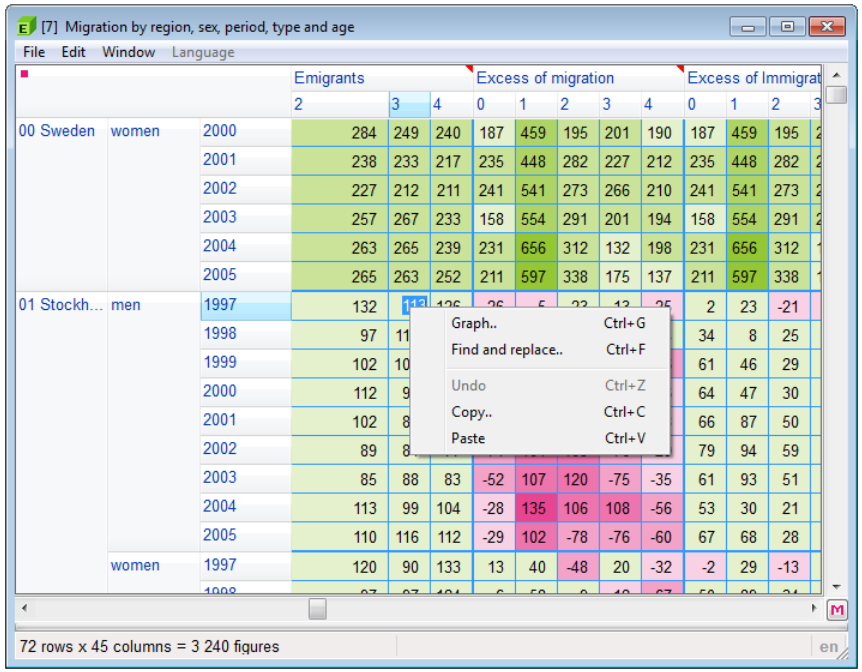
- Reduced *File*, *Edit*, *Window* and *Language* menus are available
- Minimum and maximum values are shown by double-clicking the lower right field
- The **m** button in the bottom right corner opens the *Metadata editor*
  - double click moves the *Editor* window beside the table
- Range colouring may be used to display main differences
  - five positive and negative ranges
  - dot codes and zero

Table window: editing



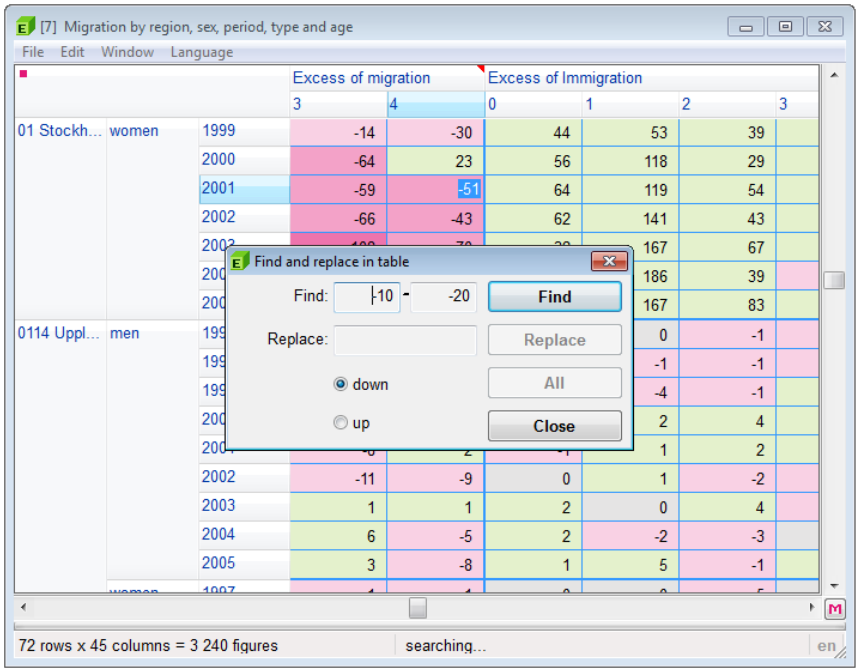
- Any cell may be edited
  - the dot codes can be tricky
- No block selections
- Move around with keyboard
  - PageUp/PageDown/Home/End
  - Up/Down/Left/Right arrows
  - Ctrl+PageUp/…
- Clipboard support
  - **Ctrl+C** opens a copy window
  - **Ctrl+V** copies the data as much as possible
- Do not forget Undo [**Ctrl+Z**]

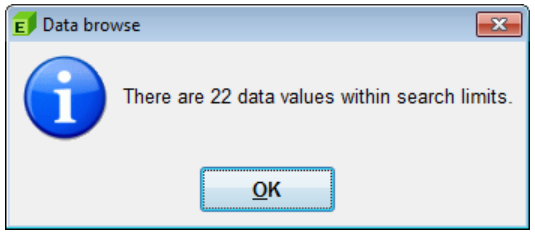
Table window: cell operations



- Right-clicking a cell opens a shortcut menu
  - chart creation [**Ctrl**+**G**]
    - the selected cell will work as the **anchor** point
  - find and replace function [**Ctrl**+**F**]
  - clipboard operations for the cell contents

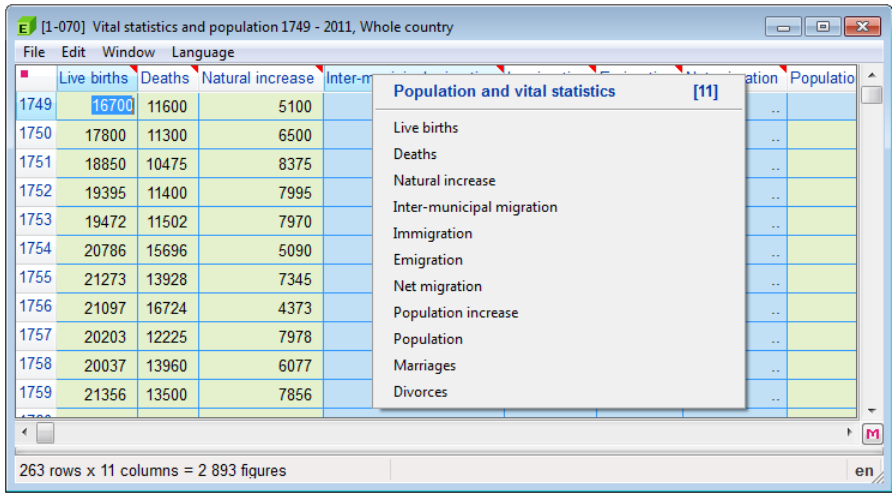
Table window: find and replace





- You can search for an individual value or desired data range
  - dot codes are possible, too
  - in addition to the down and up selections, there are shortcuts:
    F3 searches forward,
    F2 backward, and
    Ctrl+F3 gives the number of all hits
- Replace will be active when there is anything in the replace field
  - replacing may be done cell by cell or in one go with **All** button

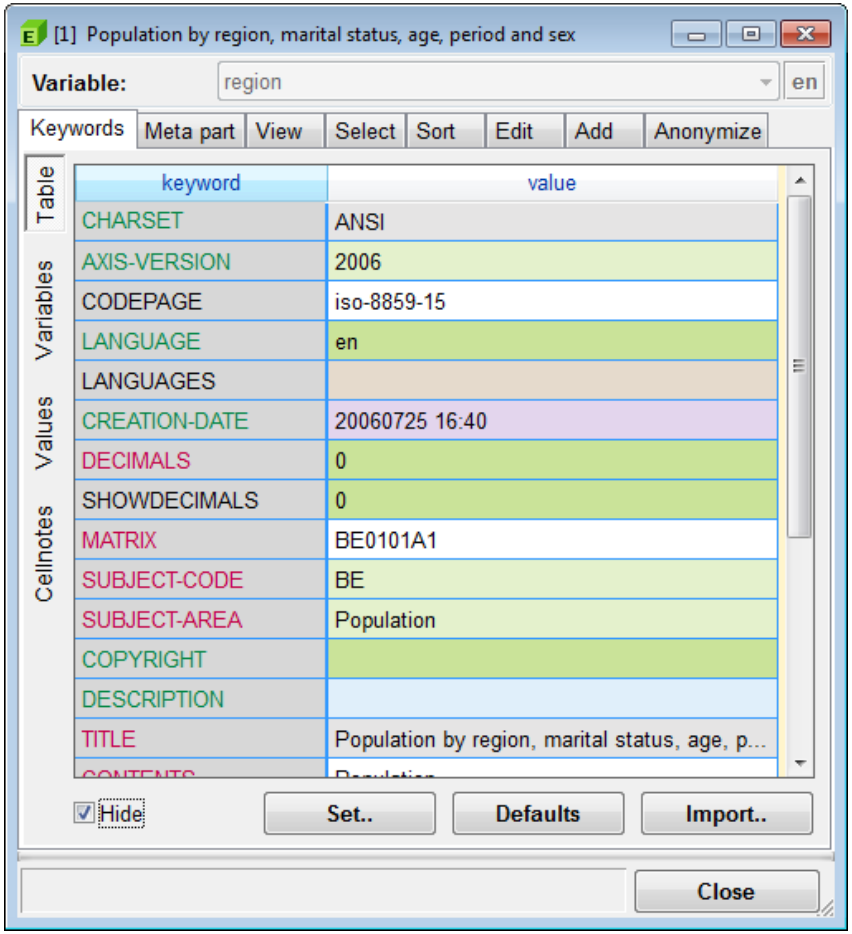
Table window: navigation



- Right-clicking the header cell opens a shortcut menu
  - the header shows the corresponding variable name and number of values
  - the selection menu gives every value text for the variable
    - selecting the value will move the table view to this value
  - long lists will be divided to sub-menus

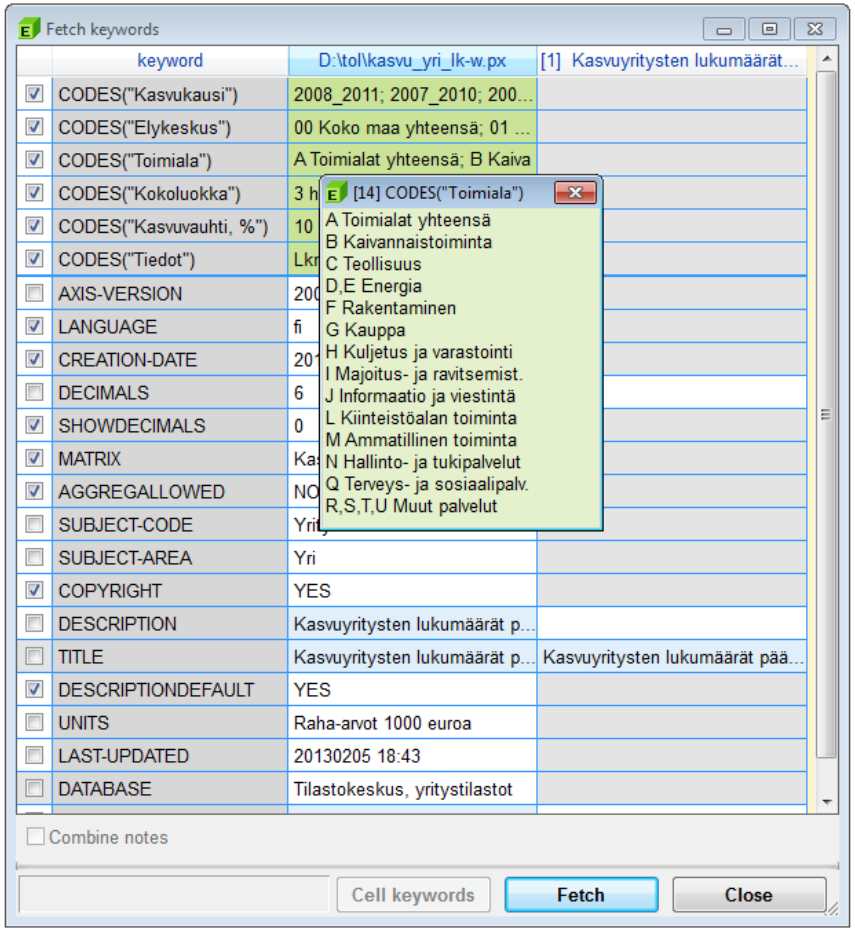
Metadata editor: Keywords

Keywords Tab



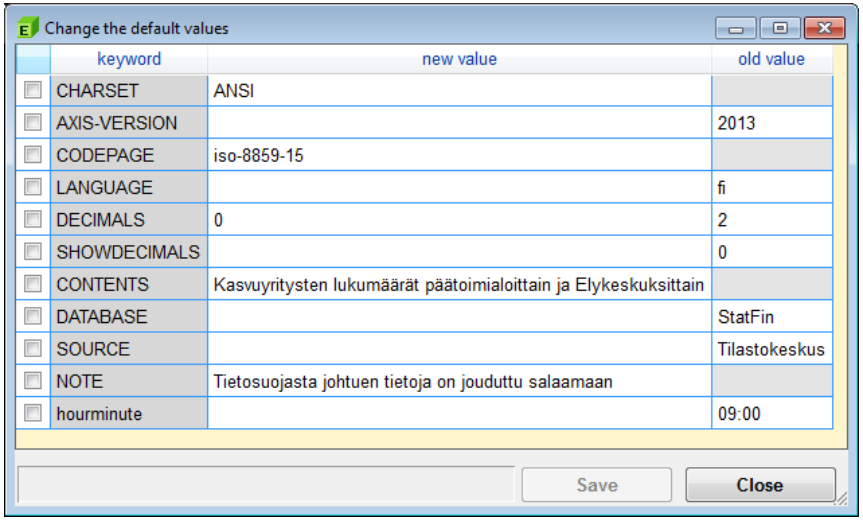
- Keywords are grouped in four sheets
- Field colours denote different actions
  - one-line input (with maximum length)
  - multi-line input
  - selection lists
  - numeric
  - time and date
  - unknown
  - special fields
    (e.g. *LANGUAGES*, *TIMEVAL)*
- *Hide* selection conceals all non-mandatory and empty keywords
  - the user level also affects the list

Keywords: import



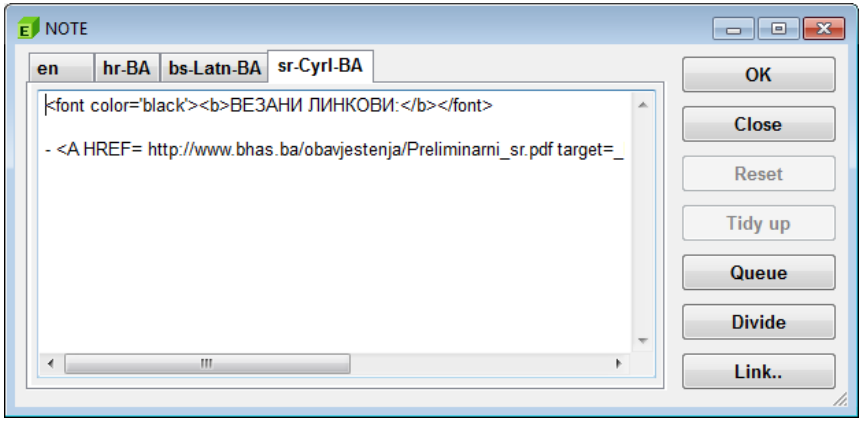
- **Import** button makes it easy to get keyword values from other PC-Axis files
  - the *Edit|Import keywords*, *Edit|Import from* (already opened tables) selections and **Ctrl+I** shortcut also work
- Viable keywords are pre-selected
- Value lists may be compared by clicking the green fields
- Other field contents may be inspected by clicking the field

Keywords: set

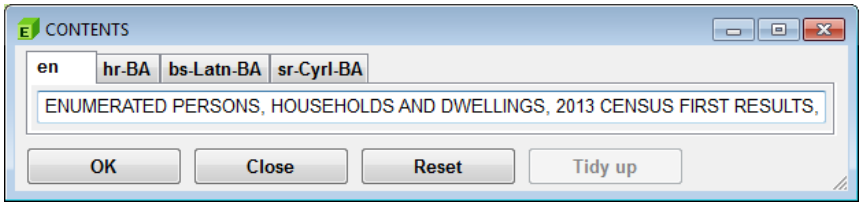


- **Set** button opens the default value control window
- Default values in use are in the rightmost column and the values from the active table are to the left
- Personal default values may be changed by marking the corresponding check boxes and pressing the **Save** button

Keywords: text input

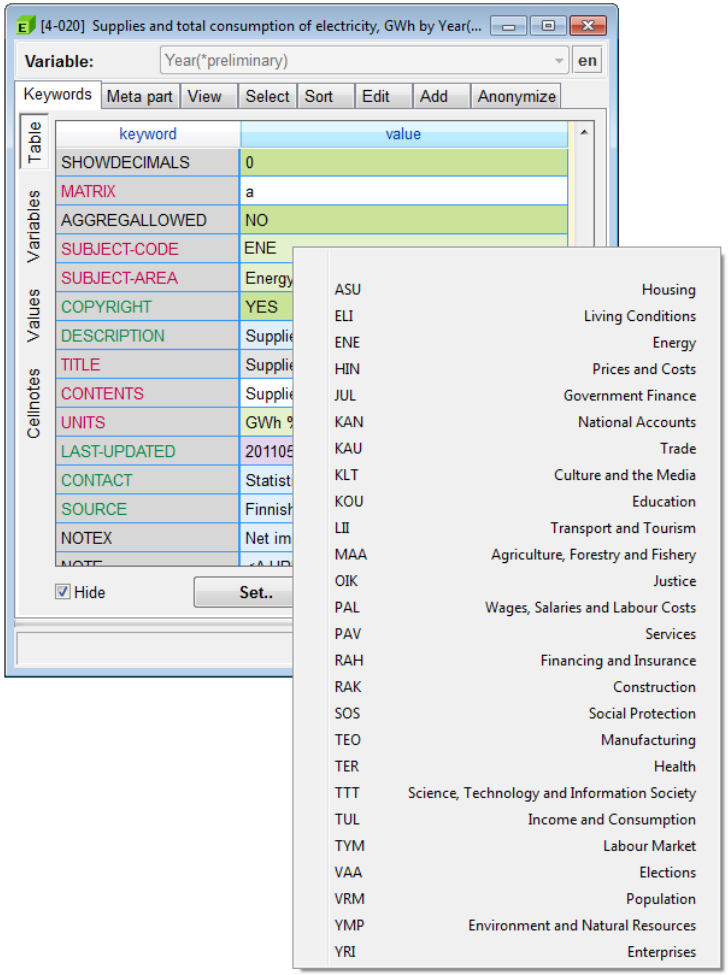


- Multiline input
  - resizable input window
  - separate sheets are available for different languages
  - clipboard support
  - line lengths may be adjusted according to the input field width (**Divide**)
  - all lines may be joined as one (**Queue**)
  - www links may be edited with a separate window (**Link**)

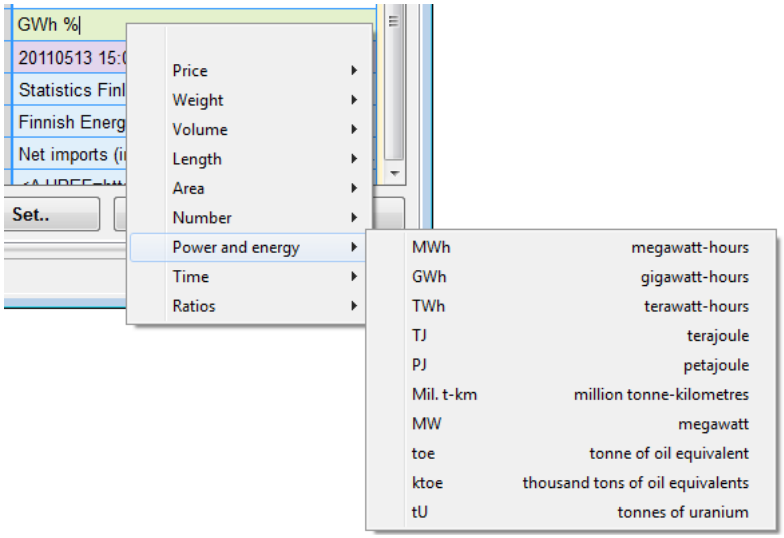


- Single line input
  - double-clicking the field gives a similar resizable input window

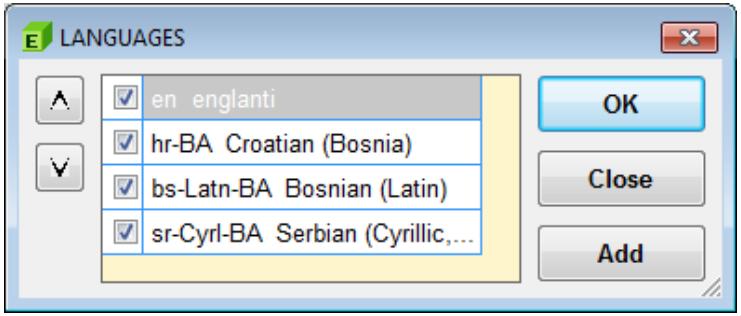
Keywords: menus



- Popup menus
  - a few alternatives
  - may contain sub-menus
  - large lists will be split to sub-menus

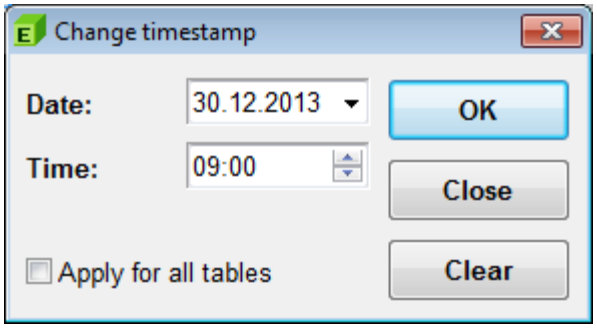


Keywords: *LANGUAGES*

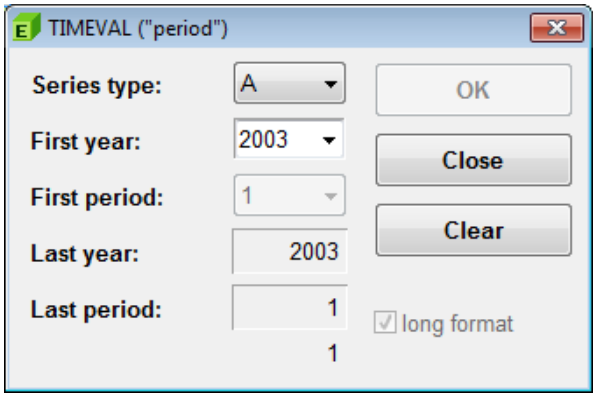


- Multilingual table languages may be added and handled via the *LANGUAGES* keyword field
  - the first language is the main language
  - the selected languages will be the selection for the *LANGUAGE* field

Keywords: other special input windows

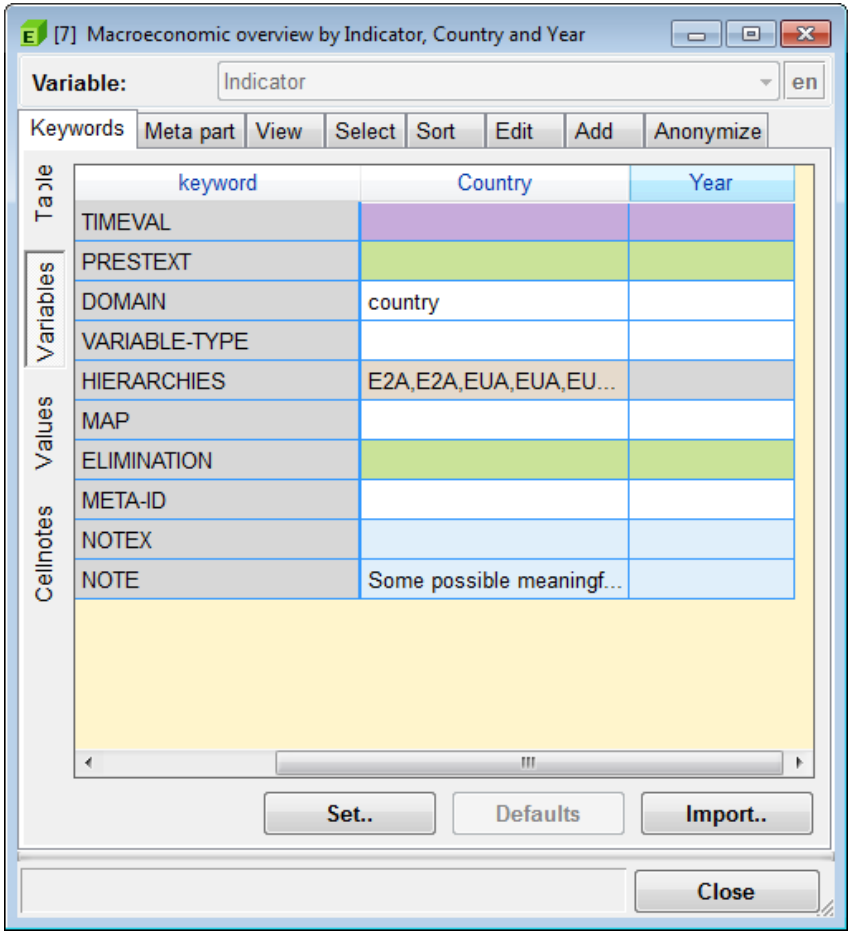


- Date and time input
  - date may be chosen from a calendar
  - a special input field for time stamps



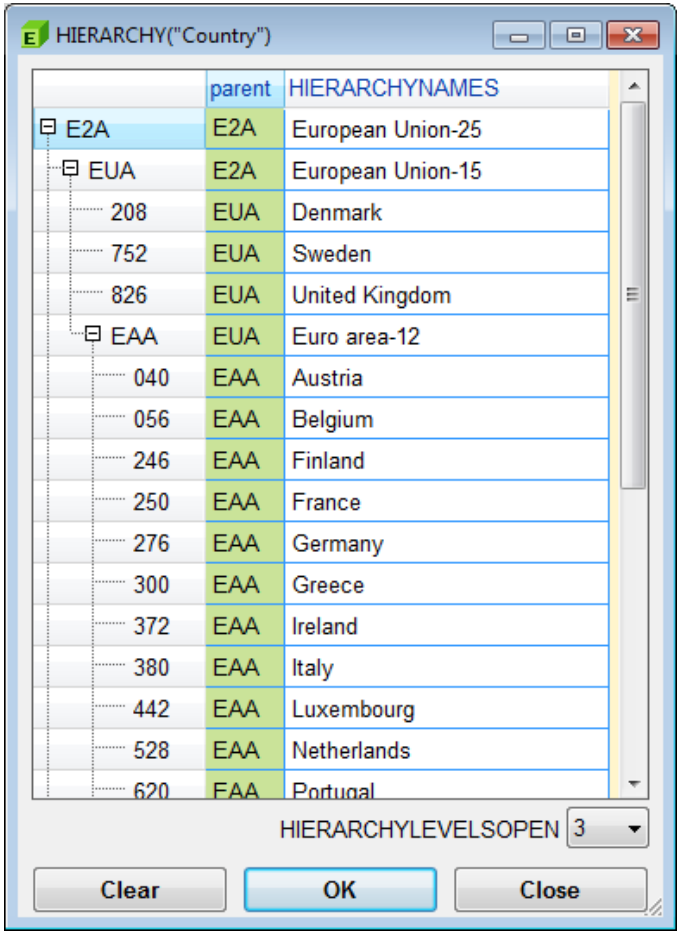
- *TIMEVAL* input via a special window
  - five different time series types
  - two keyword formats

Keywords: variable-specific keywords



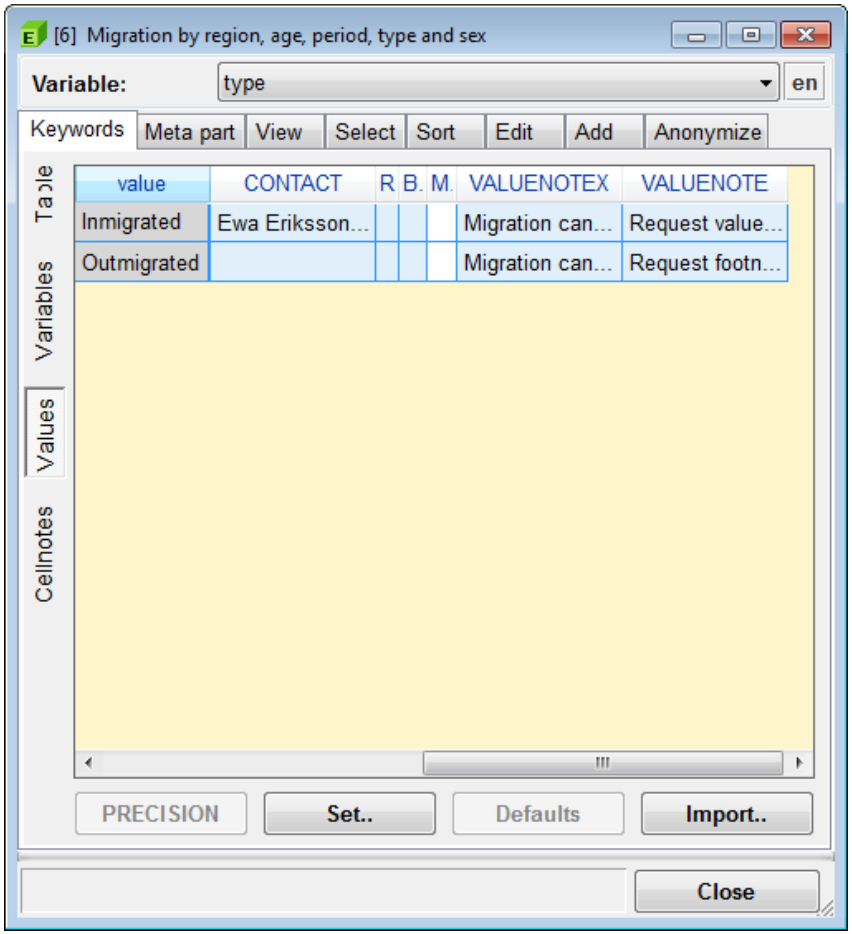
- Keyword fields are presented as a table
- Each table variable is in a different column
- Some keywords may exist only in one variable (e.g. *MAP*)
- Clicking the *HIERARCHIES* field will open a separate window

Hierarchies



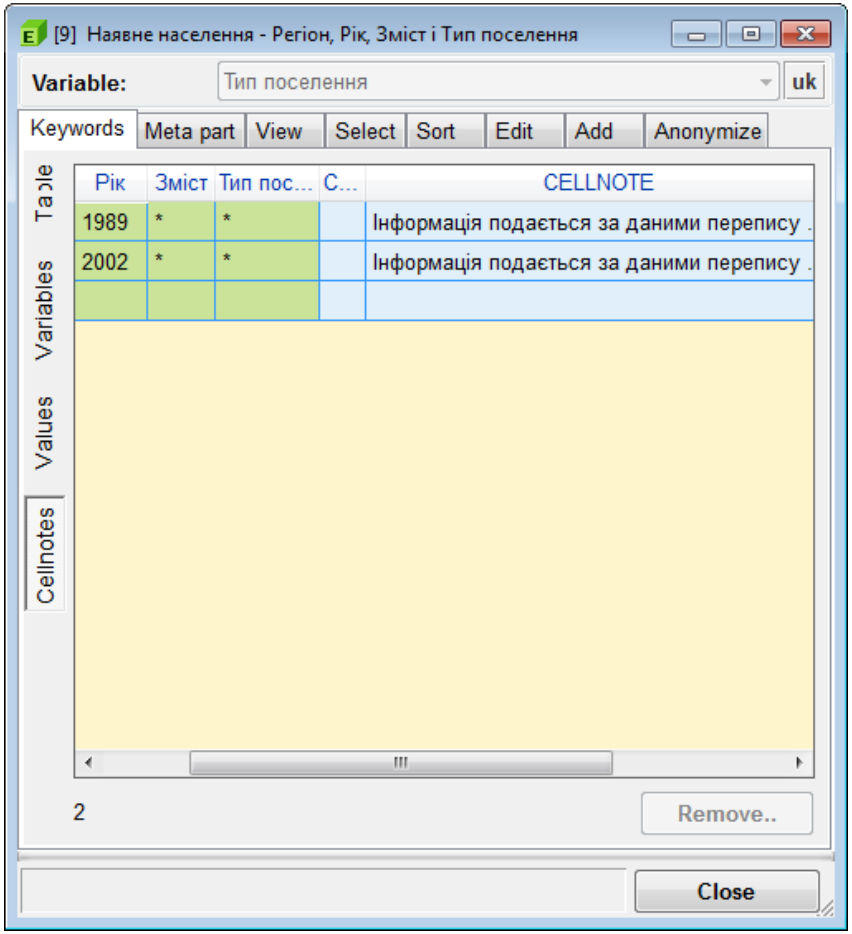
- The *Hierarchies* window is mainly meant for showing the existing value hierarchy, but it has (limited) functionality to change the existing one
  - ordering and selections are reflected to the hierarchy keywords
  - hierarchies may be changed via parent menus

Keywords: value-specific keywords



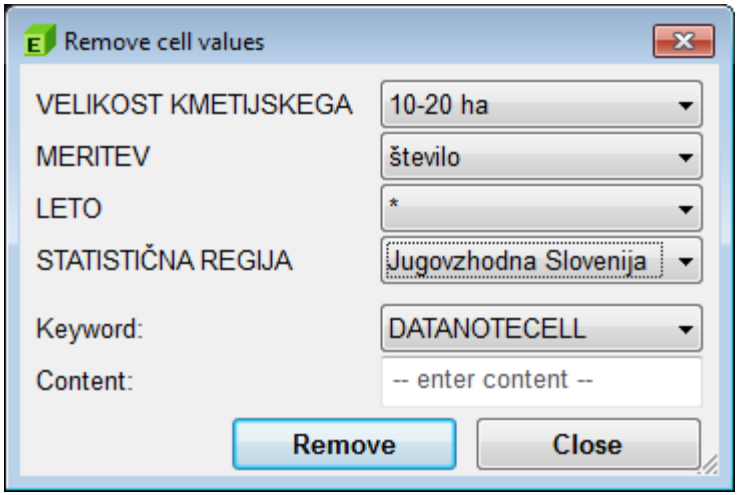
- The variable selection drop-down list is used in every sub-window
- If *CONTVARIABLE* is in use, this sheet will show extra keyword columns for the corresponding variable
  - they disappear from the table-specific keyword window (except *UNITS*)
- Set *PRECISION*s automatically
  - the biggest number of decimals is used for the new value *PRECISION* (if not greater than *DECIMALS*)

Keywords: cell-specific keywords



- The *Cellnotes* sheet is used for cell-specific keyword input
- The values for each variable are selected from the value lists (* denotes all values)
- An extra row is added when necessary
- If there are plenty of cell specific keywords, the **Remove** button will activate

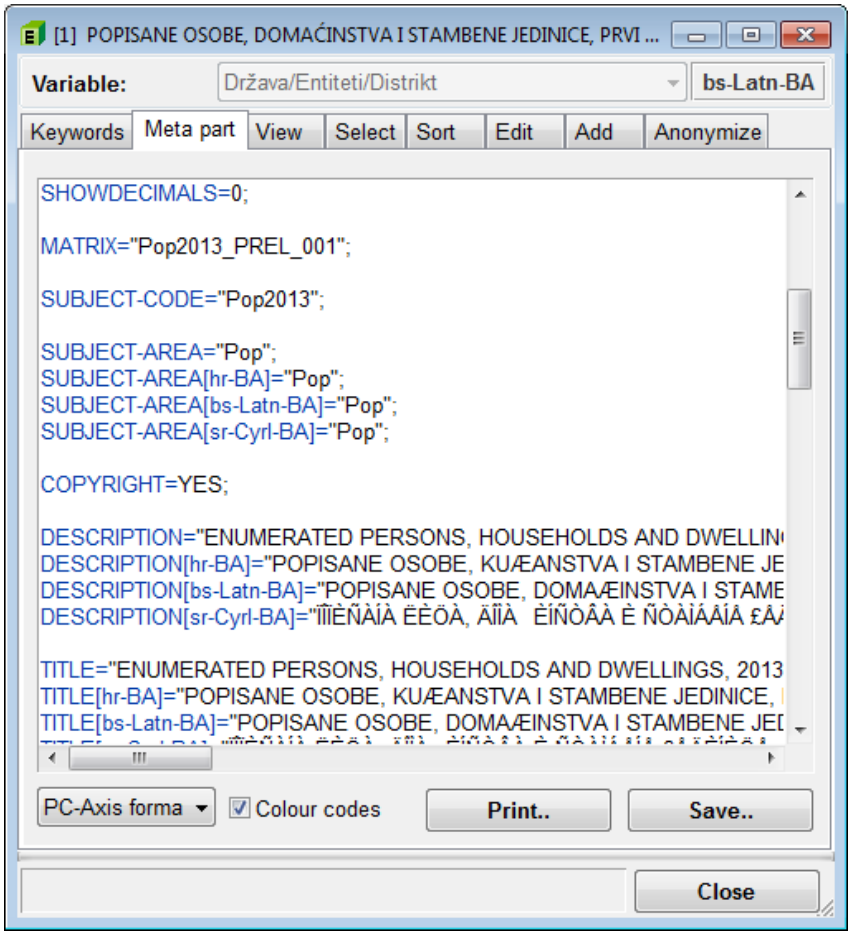
Deleting cell-specific keywords



- The *Remove* window makes it possible to remove groups of cell specific keywords permanently
- Keyword removing cannot be undone

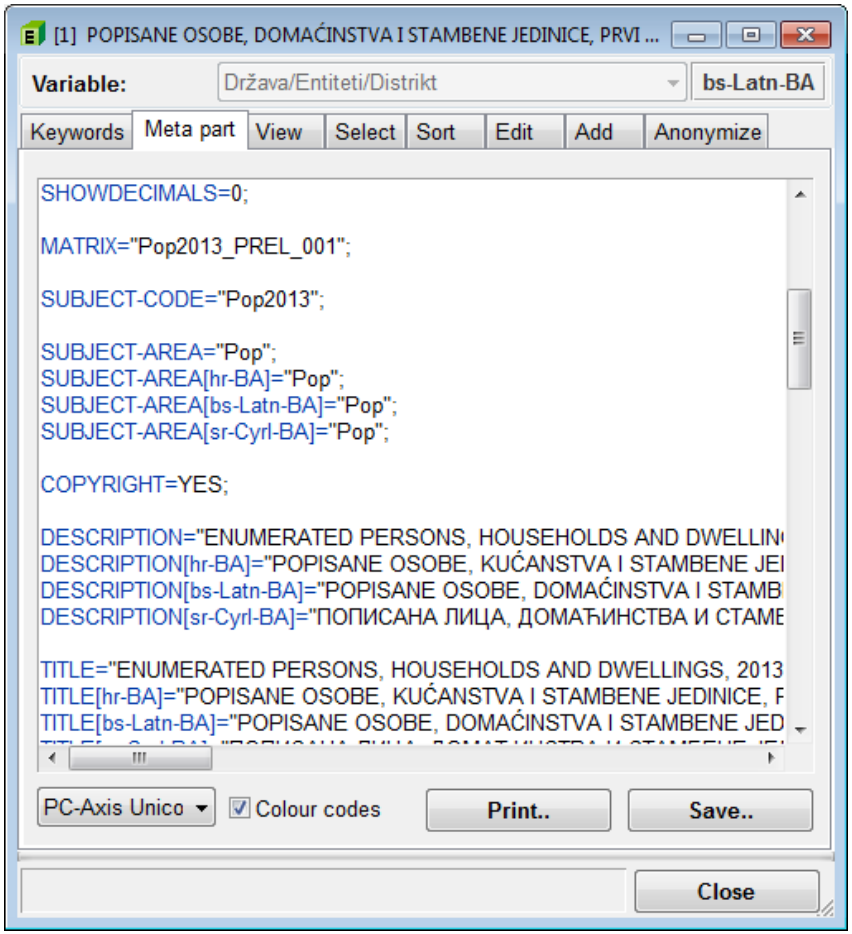
Metadata editor: Meta part

Meta part Tab



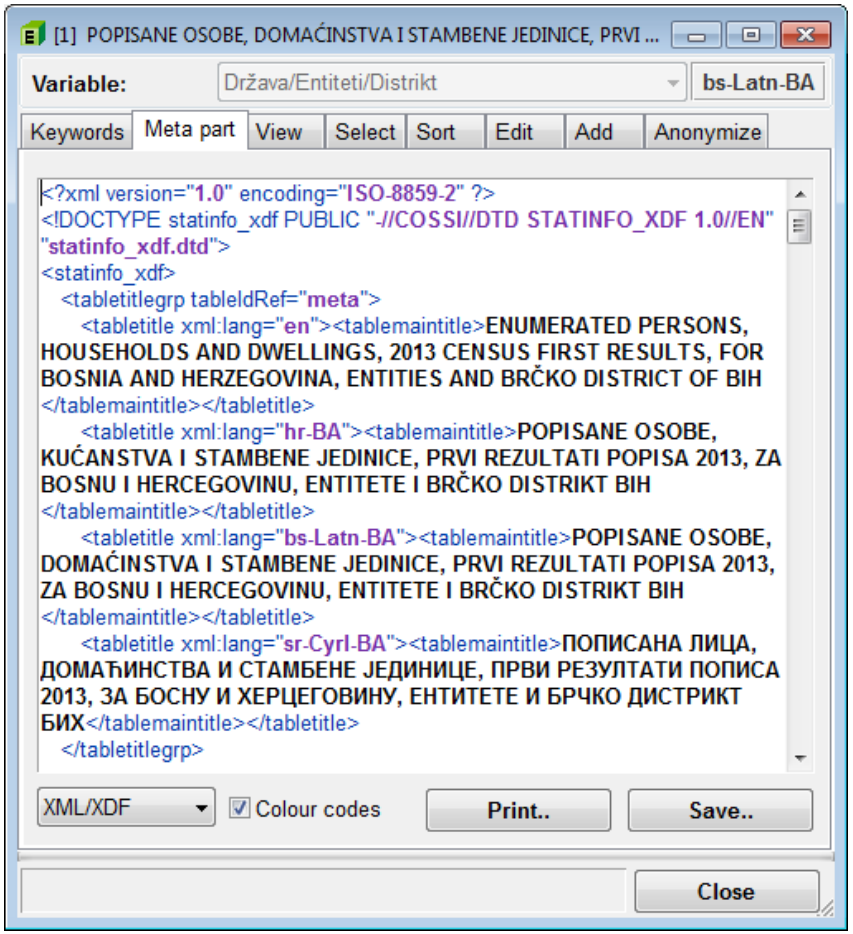
- The file structure will be shown as it would be saved in the file
  - the standard keyword order
  - no data part
  - empty lines between keywords
  - *KEYS* values are not necessarily the same as they would be when saved
- Clipboard and printing is supported
- May be saved as a metadata file (.pxk)

Meta part: PC-Axis Unicode



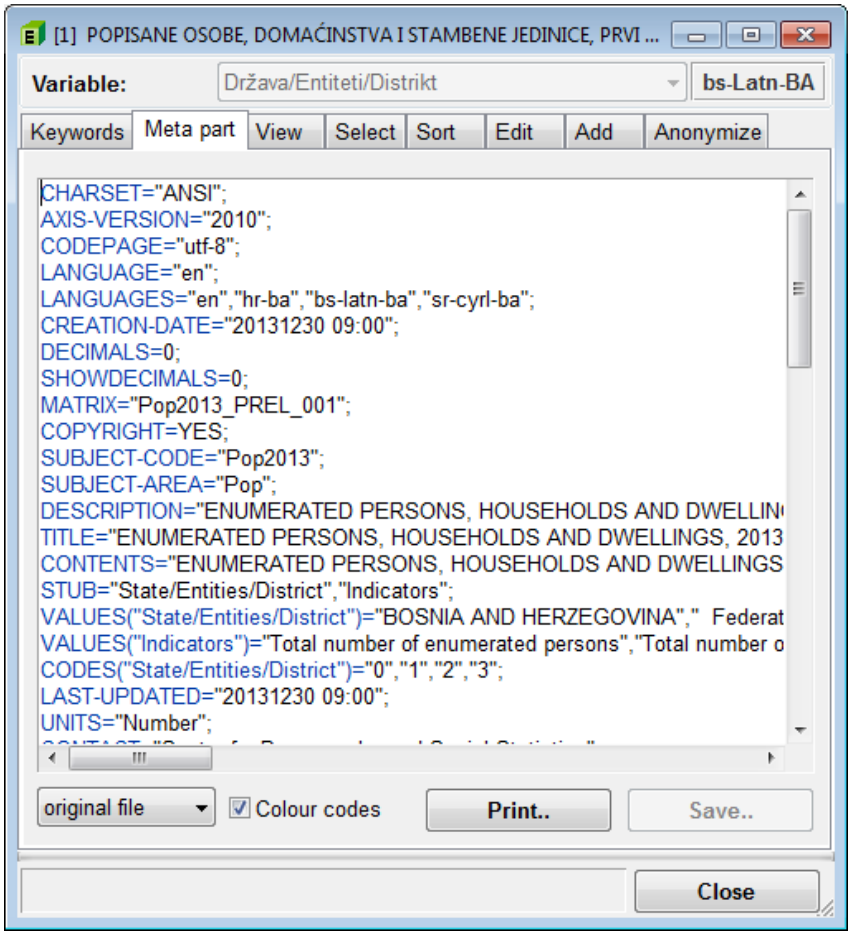
- The file structure shown in Unicode

Meta part: XML



- The XML selections show the meta part in the different *CoSSI/XML* formats
  - no data part
  - tagged sections are indented
  - syntax highlighting with colour coding
  - creating the XML format may be time consuming with big tables (especially with the `Cals` format)
- May be saved as a text file (.txt)

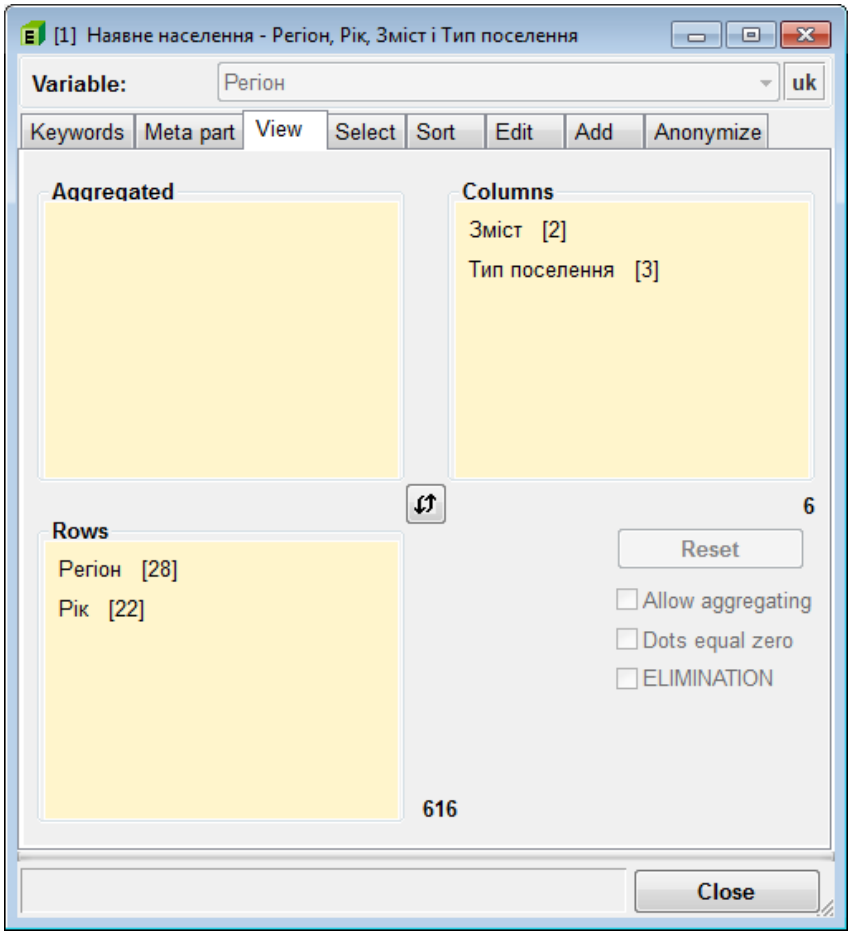
Meta part: the original file



- The meta part in the file selection shows the meta part as it is in the original file
  - no extra formatting
  - valid only when the file exists

Metadata editor: View

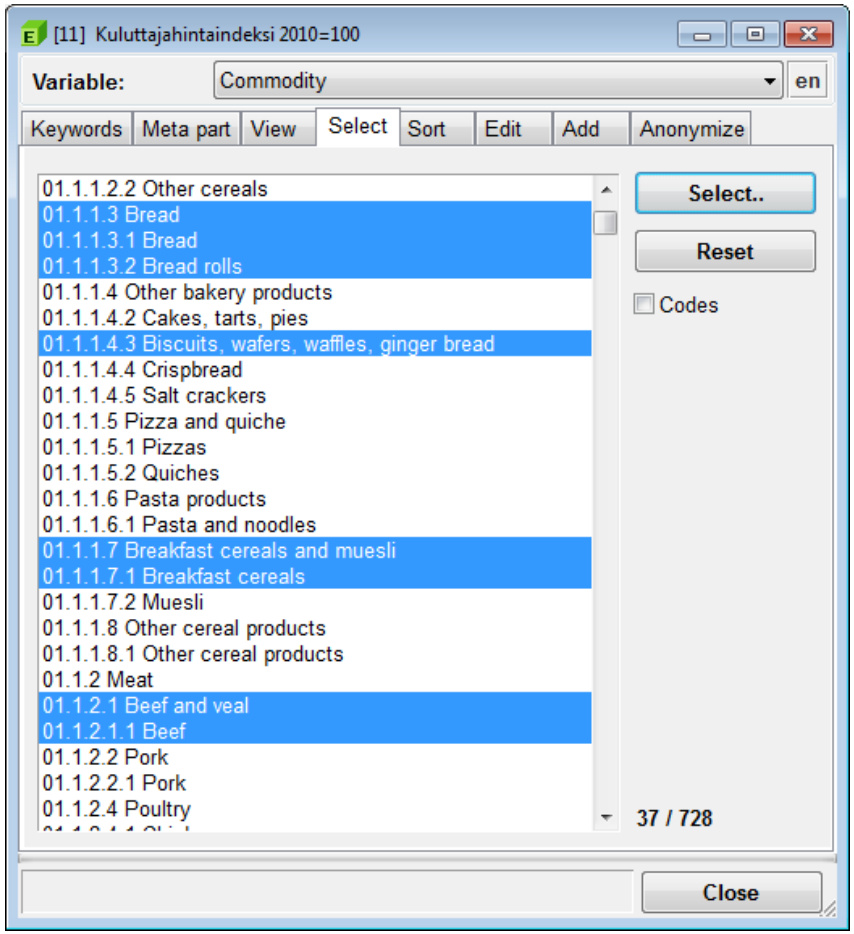
View Tab



- Rearrange variables freely
- Aggregation (sum over)
- Special cases
  - dot codes calculation rule
  - *ELIMINATION* settings
- Aggregation prevents some actions (e.g. cell editing)
  - *Edit|Clone View* may help if necessary

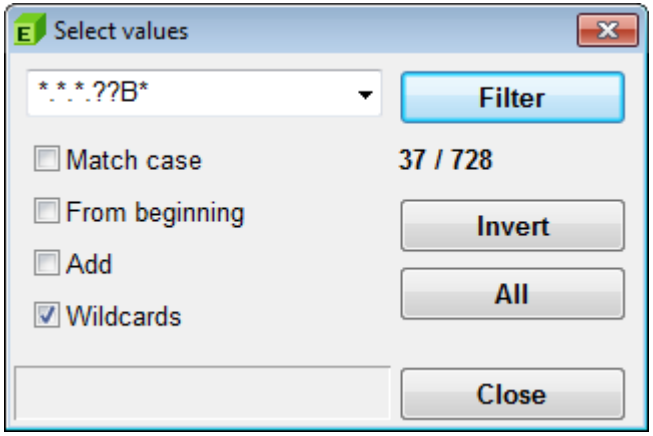
Metadata editor: Select

Select Tab



- Freely select values of any variable (”slicing the cube”)
  - the selections affect e.g. data masking
- The **Select** button opens a specific list filter window
- Pressing any character will select all the lines which start with the same character (case sensitive)
  - selections are cumulative
  - **Alt**+*character* is non-inclusive
  - **Ctrl**+**A** selects all values
  - **Ctrl**+**I** inverts the selections

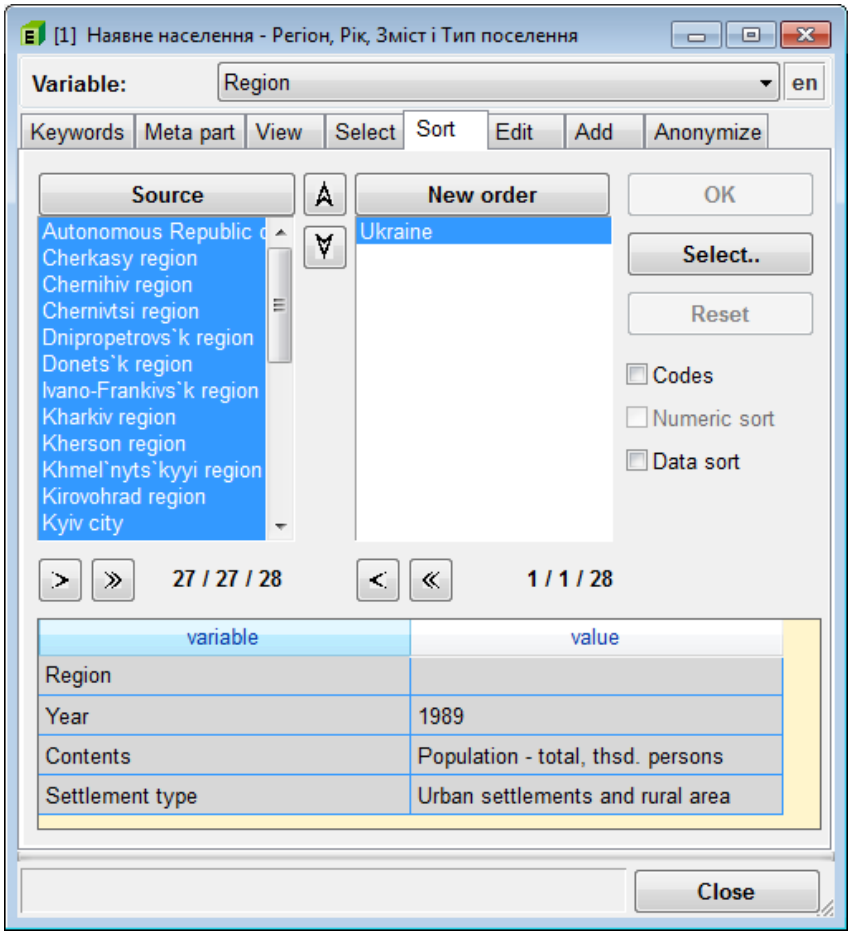
Filtering window



- Long lists are difficult to handle with mouse operations
- The *Filter* window makes it possible to select items from the list based on
  - text string in the text
  - text string starting the text
  - text string with wildcards (* and ?)
  - cumulative selections
  - inverse selections

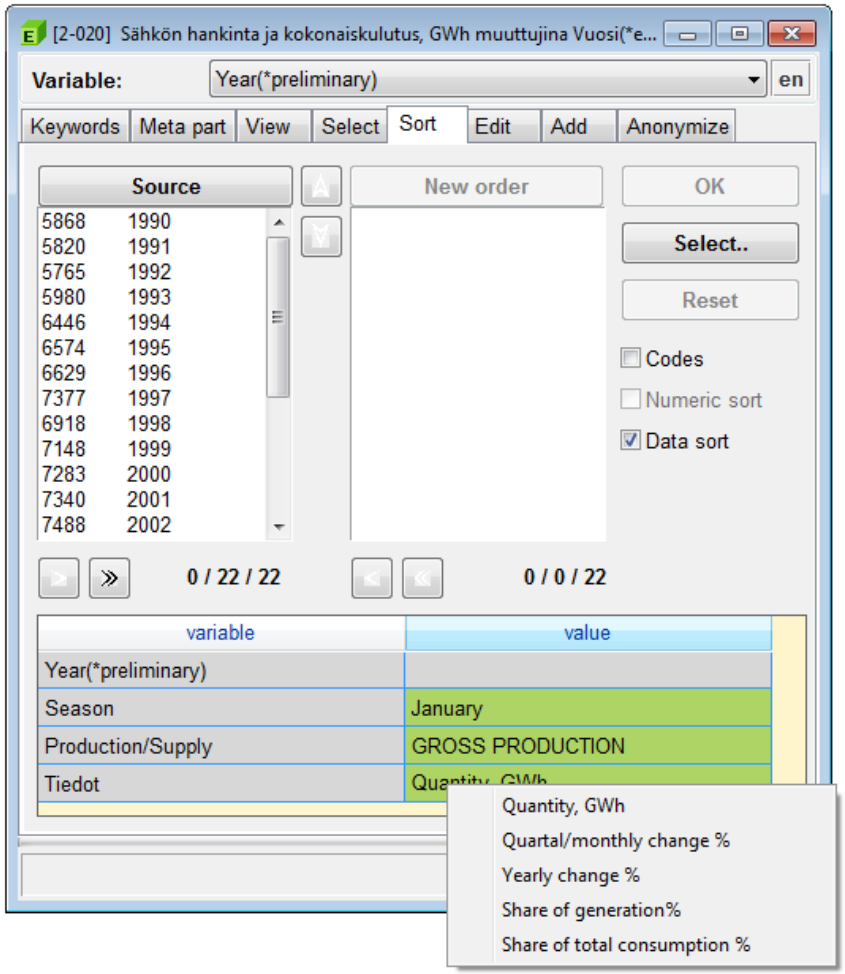
Metadata editor: Sort

Sort Tab



- Freely rearrange values of any variable
  - alphabetical sorting
  - numeric codes sorted by value
  - only the selected lines are sorted
  - the whole list may be selected by clicking its header
  - manually move selected lines
- The **Select** button opens the *Filter* window
- Remember the **OK** button!

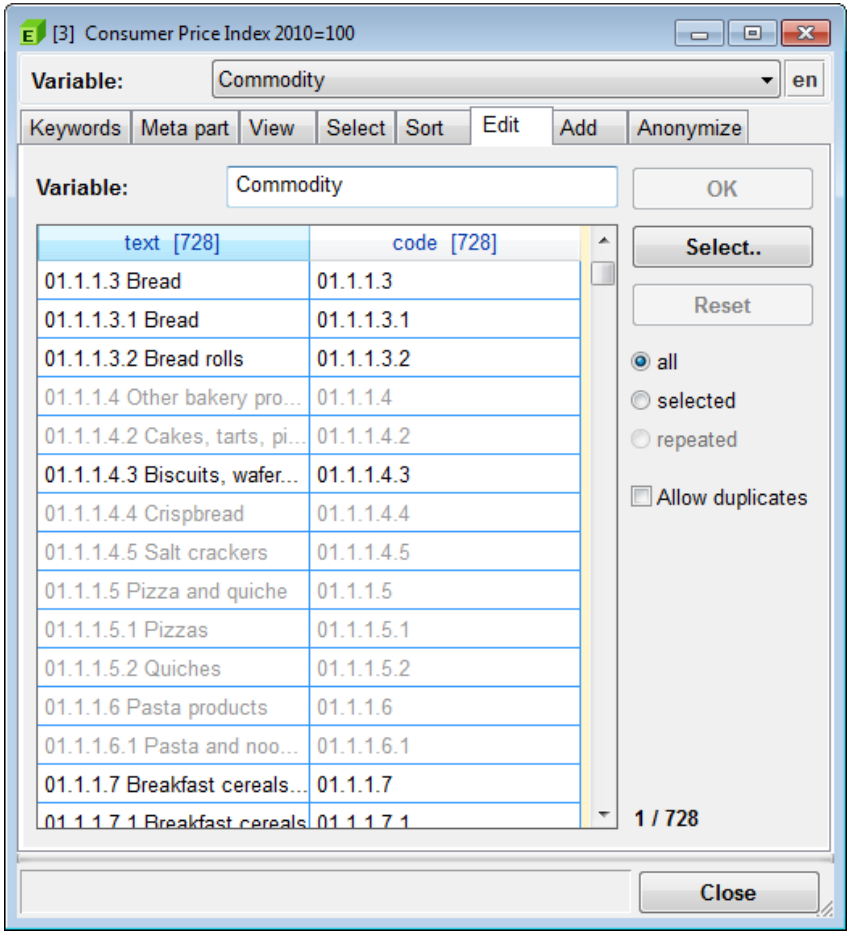
Sort: data sort



- Sort by data
  - select the fixed values from other variables
  - the numeric values will be put in front of the value texts (or codes)
  - the selected lines may be sorted according to these numeric values
  - dot codes equal zero

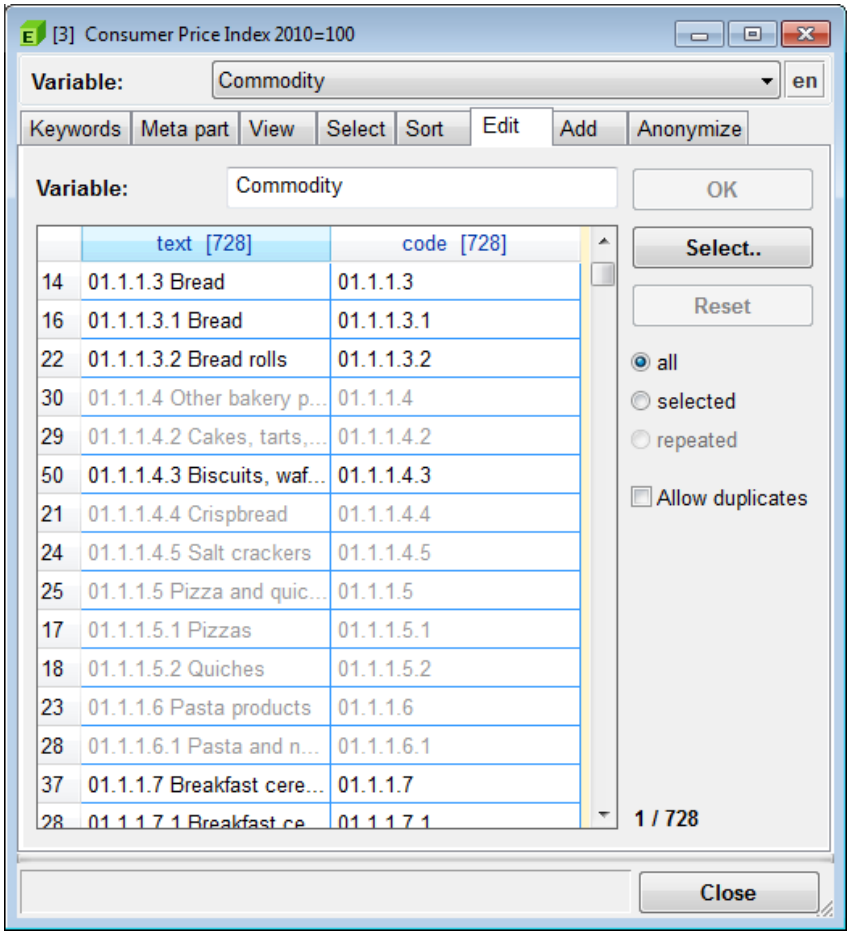
Metadata editor: Edit

Edit Tab



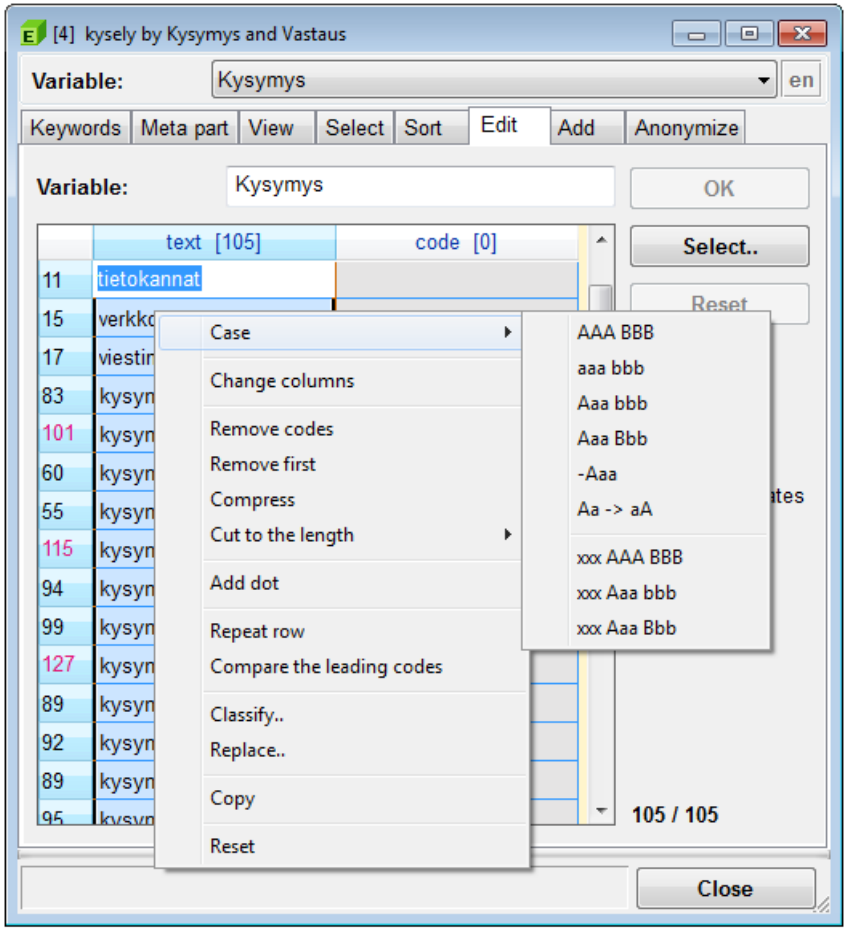
- Rename and/or select variables
- Values and codes are shown in the list
  - the whole list may be selected by clicking its header
  - the header shows the number of unique lines
  - unselected values are greyed out
  - duplicated texts or codes are shown with a yellow background
  - it is possible to view only selected or repeated lines
- Remember the **OK** button!

Edit: value list



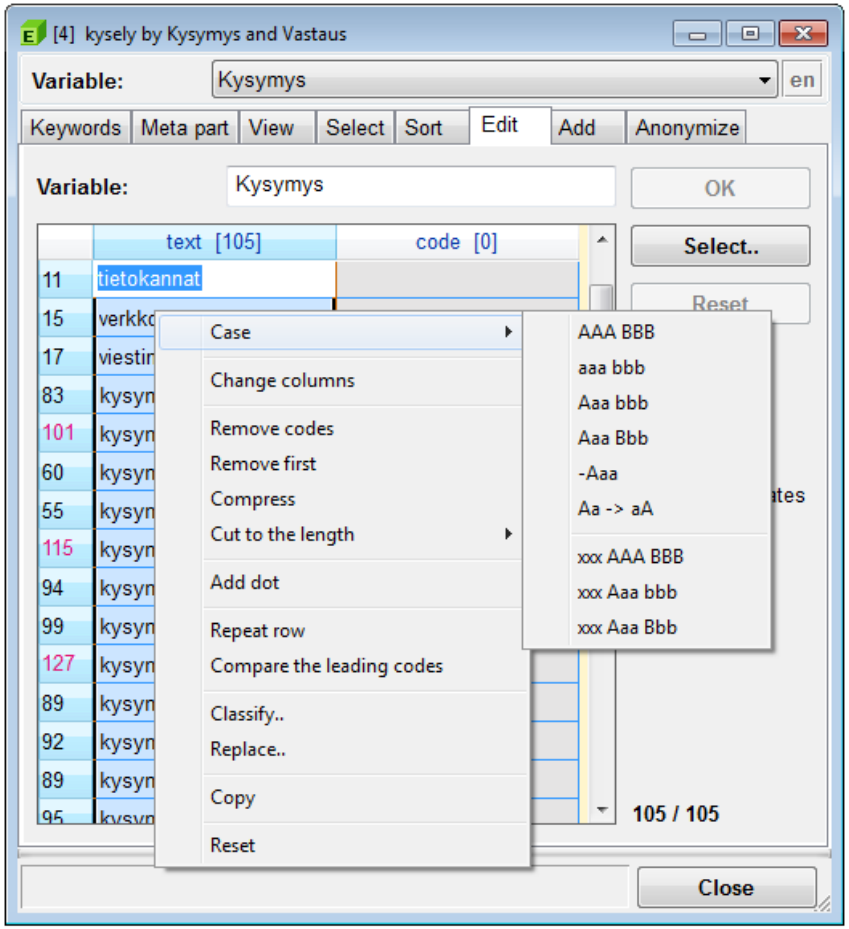
- Text lengths can be made visible by dragging the upper left area of the header
  - comes forth automatically if any length exceeds the pre-set limit
- The value or code menu opens by right-clicking
  - will show only applicable menu items

Edit: values menu /1



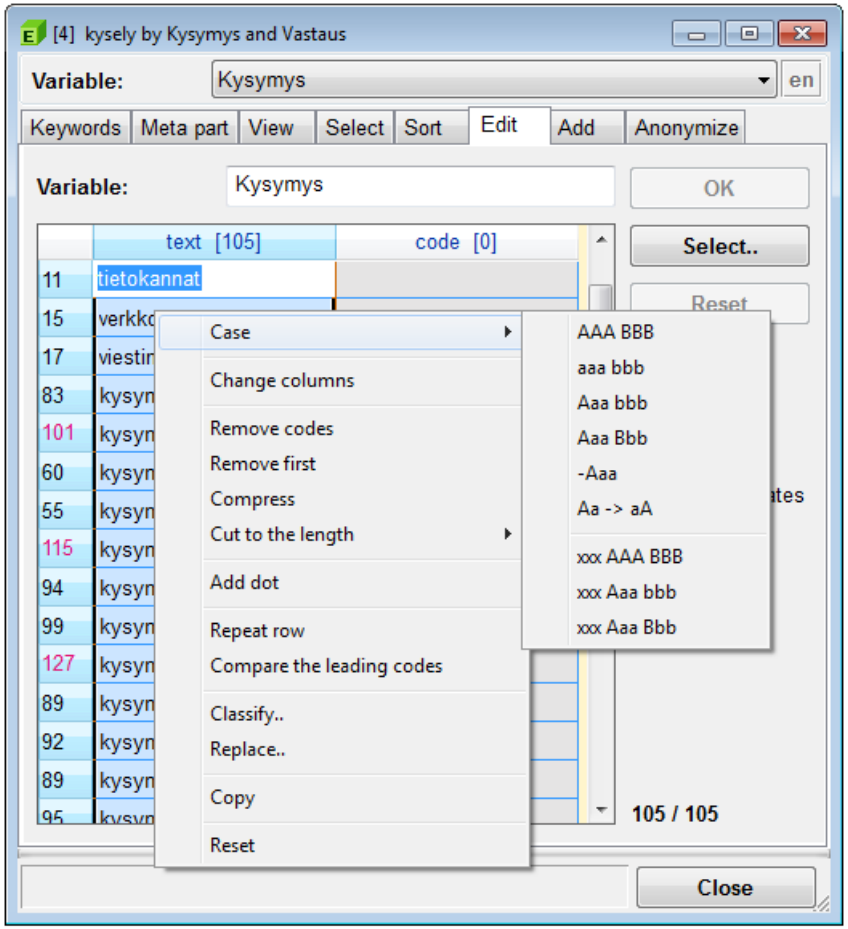
- *Case* sub-menu
  - character case changes
- Combine with codes
  - put codes in front of the texts separated with space
- Replace with codes
  - replace texts with corresponding codes
- Change columns
  - change texts to codes and vice versa
- Remove codes
  - remove the leading codes
- Remove first
  - remove the first character

Values: case menu /1



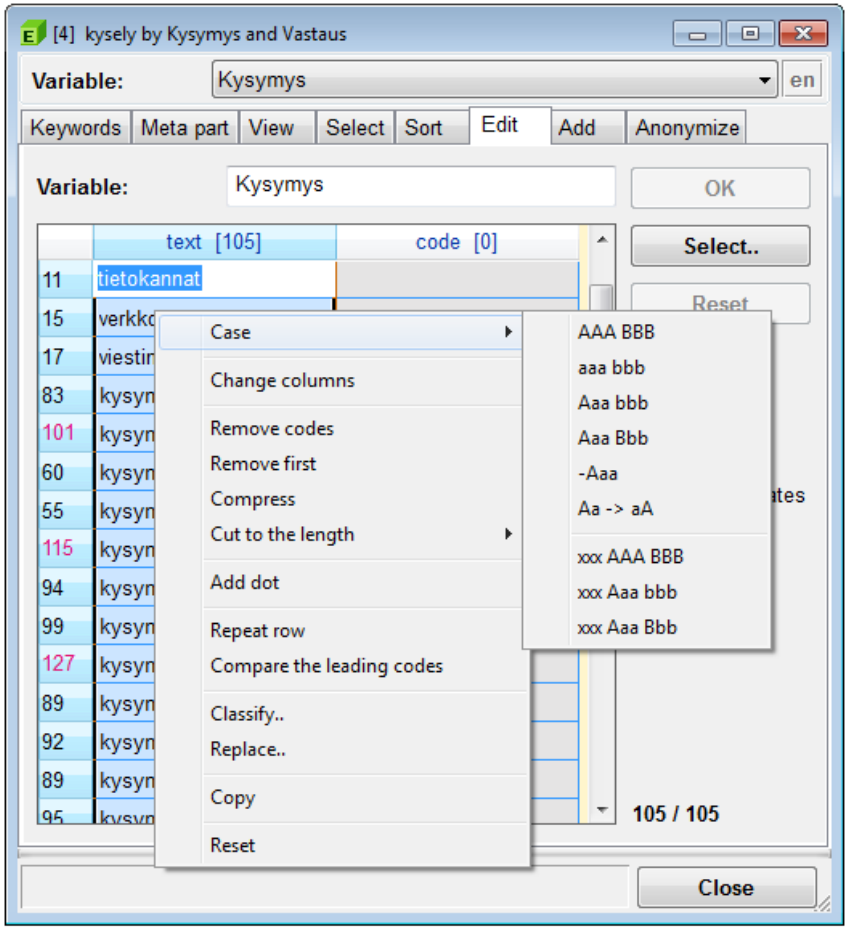
- AAA BBB
  - all uppercase
- aaa bbb
  - all lowercase
- Aaa bbb
  - capitalize (the first character in uppercase)
- Aaa Bbb
  - title-case (all the first characters in uppercase)
- Aaa – Bbb
  - all characters in lowercase except the first and the first letter of the first word after a dash

Values: case menu /2



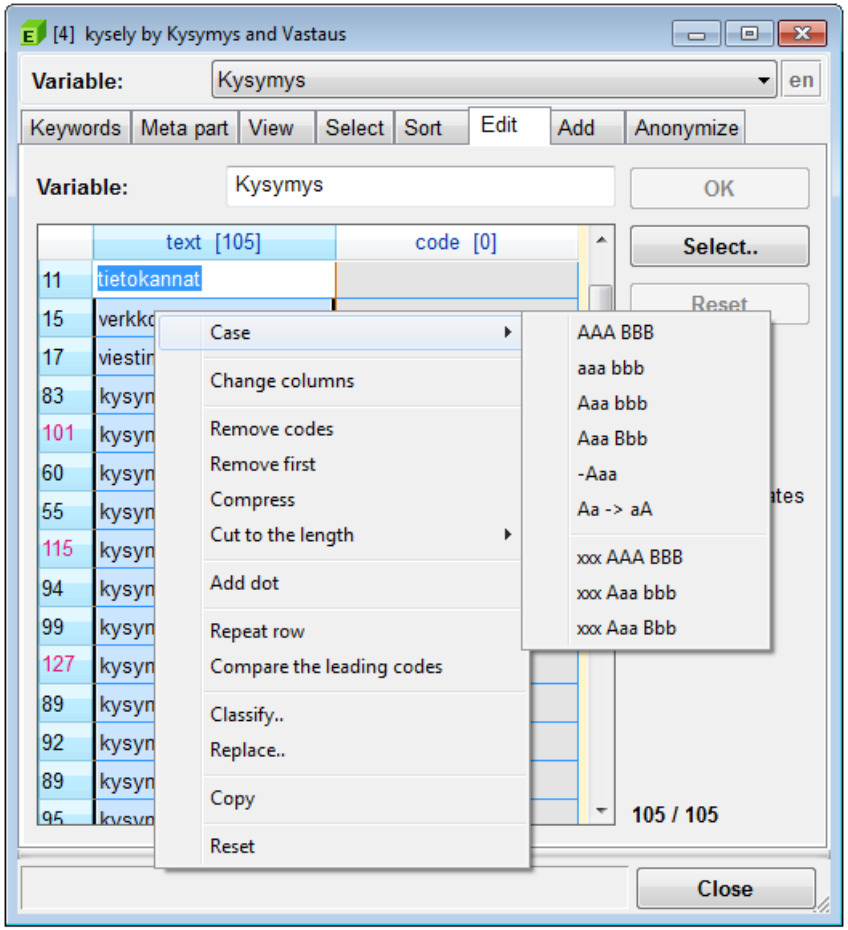
- -Aaa
  - the first character adjoined to dash in uppercase
- Aa -> aA
  - invert cases
- xxx AAA BBB
  - like *AAA BBB* but the leading code stays intact
- xxx Aaa bbb
  - like *Aaa bbb* but the leading code stays intact
- xxx Aaa Bbb
  - like *Aaa Bbb* but the leading code stays intact

Edit: values menu /2



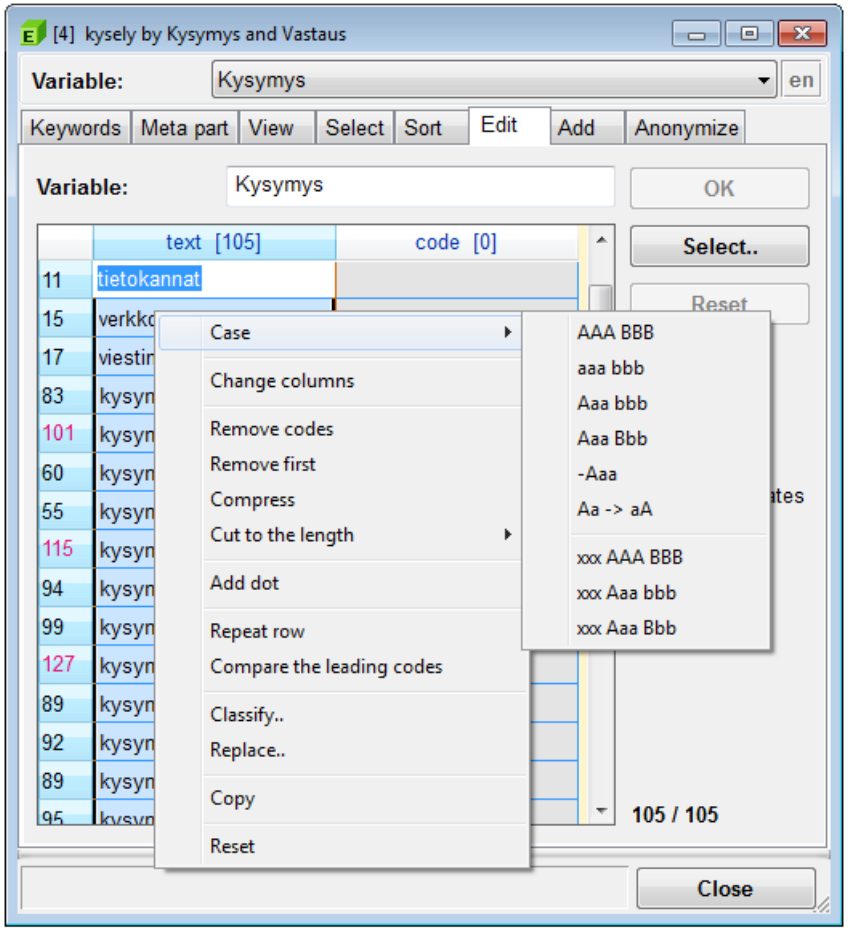
- Remove the leading blanks
  - drop the leading spaces
- Compress
  - compress successive blanks to one
- *Cut to the length* sub-menu
  - trim line length
- Add dot
  - add a dot in front of the selected lines
- Repeat row
  - replace the selected lines with the first selected line
- Compare the leading codes
  - bring the matching code to the first visible line

Edit: values menu /3



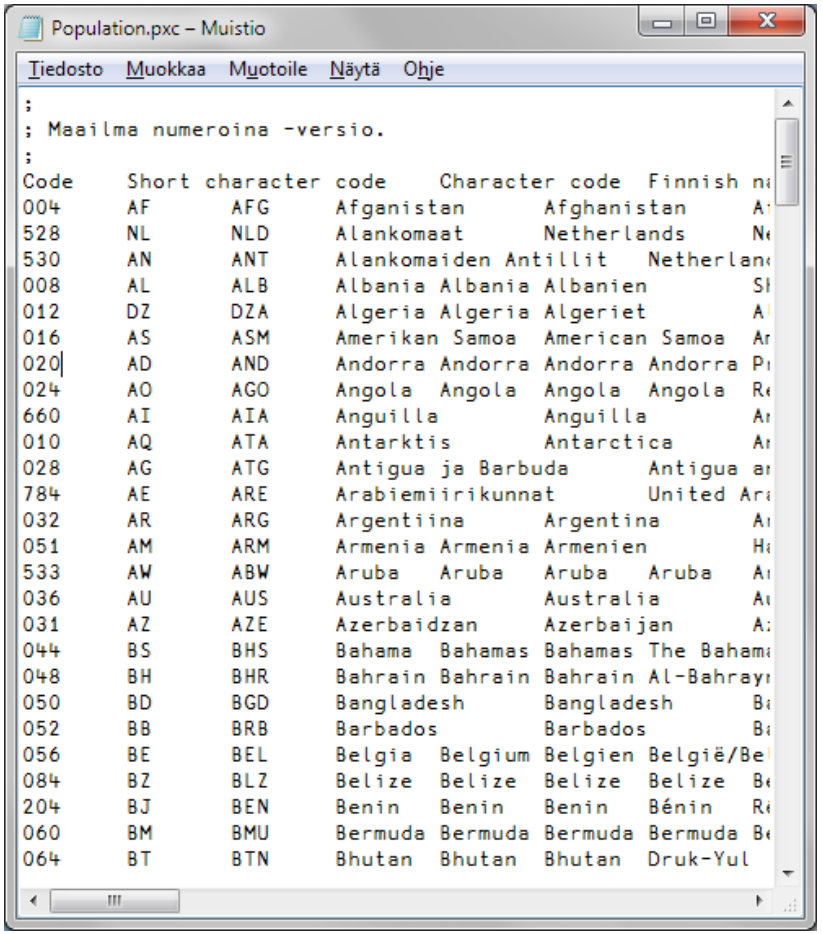
- Leading blanks to dots
  - change leading blanks to dots
- Leading dots to blanks
  - change leading dots to blanks
- Tabs to spaces
  - replace tab-characters to spaces
- Classify
  - standardise the value texts according to the codes
- Replace
  - change texts in all value texts

Edit: values menu /4



- Identity number
  - pick gender and age from the Finnish social security number
  - comes forth only when the values are valid IDs
- Copy
  - copy the selected lines to the clipboard
- Paste
  - paste the clipboard contents to the texts
- Reset
  - switch back to the original value texts

Classification file



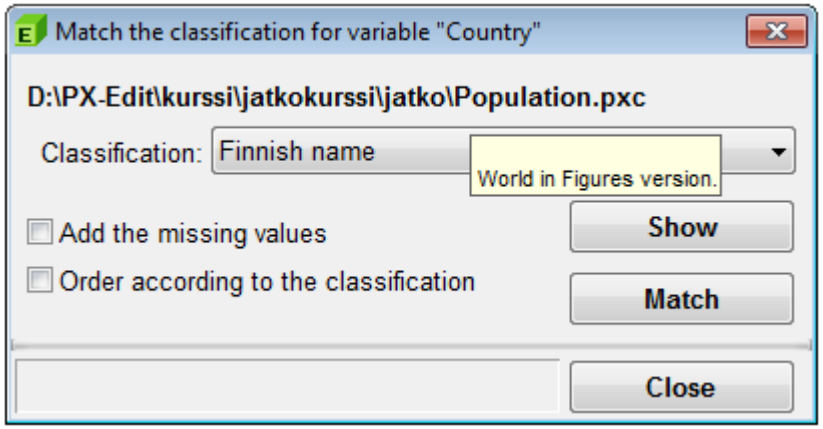
Population.pxc – Muistio

Tiedosto Muokkaa Muotoile Näytä Ohje

```
;
; Maailma numeroina -versio.
;
Code    Short character code    Character code  Finnish na
004     AF      AFG     Afganistan      Afghanistan     A
528     NL      NLD     Alankomaat      Netherlands     Ne
530     AN      ANT     Alankomaiden Antillit   Netherlan
008     AL      ALB     Albania Albania Albanien        Sh
012     DZ      DZA     Algeria Algeria Algeriet        A
016     AS      ASM     Amerikan Samoa  American Samoa  Ar
020     AD      AND     Andorra Andorra Andorra Andorra Pr
024     AO      AGO     Angola  Angola  Angola  Angola  Re
660     AI      AIA     Anguilla        Anguilla        Ar
010     AQ      ATA     Antarktis       Antarctica      Ar
028     AG      ATG     Antigua ja Barbuda      Antigua ar
784     AE      ARE     Arabiemiirikunnat       United Ara
032     AR      ARG     Argentiina      Argentina       Ar
051     AM      ARM     Armenia Armenia Armenien        Ha
533     AW      ABW     Aruba   Aruba   Aruba   Aruba   Ar
036     AU      AUS     Australia       Australia       Au
031     AZ      AZE     Azerbaidzan     Azerbaijan      Az
044     BS      BHS     Bahama  Bahamas Bahamas The Bahama
048     BH      BHR     Bahrain Bahrain Bahrain Al-Bahrayn
050     BD      BGD     Bangladesh      Bangladesh      Ba
052     BB      BRB     Barbados        Barbados        Ba
056     BE      BEL     Belgia  Belgium Belgien België/Bel
084     BZ      BLZ     Belize  Belize  Belize  Belize  Be
204     BJ      BEN     Benin   Benin   Benin   Bénin   Re
060     BM      BMU     Bermuda Bermuda Bermuda Bermuda Be
064     BT      BTN     Bhutan  Bhutan  Bhutan  Druk-Yul
```

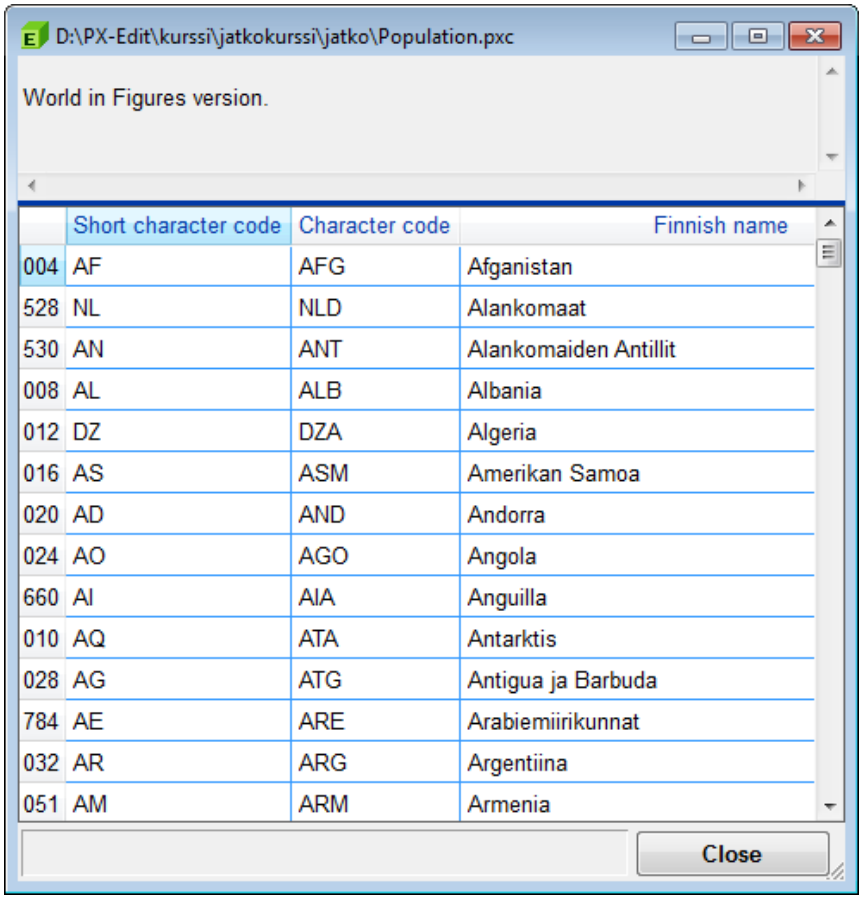
- File extension is pxc
- Every line is tab-delimited
- The first line contains column titles
- The first column contains the codes
- The next columns contain different classifications
- Comment lines start with a semicolon
  - shown in the classification window as hint bubbles

Classify window



- If the selection does not contain all the values, only the classification may be selected
  - the original classification file may be browsed by clicking the **Show** button
- If the whole variable is selected, it is possible to add all the classification values and/or rearrange the values according to the classification

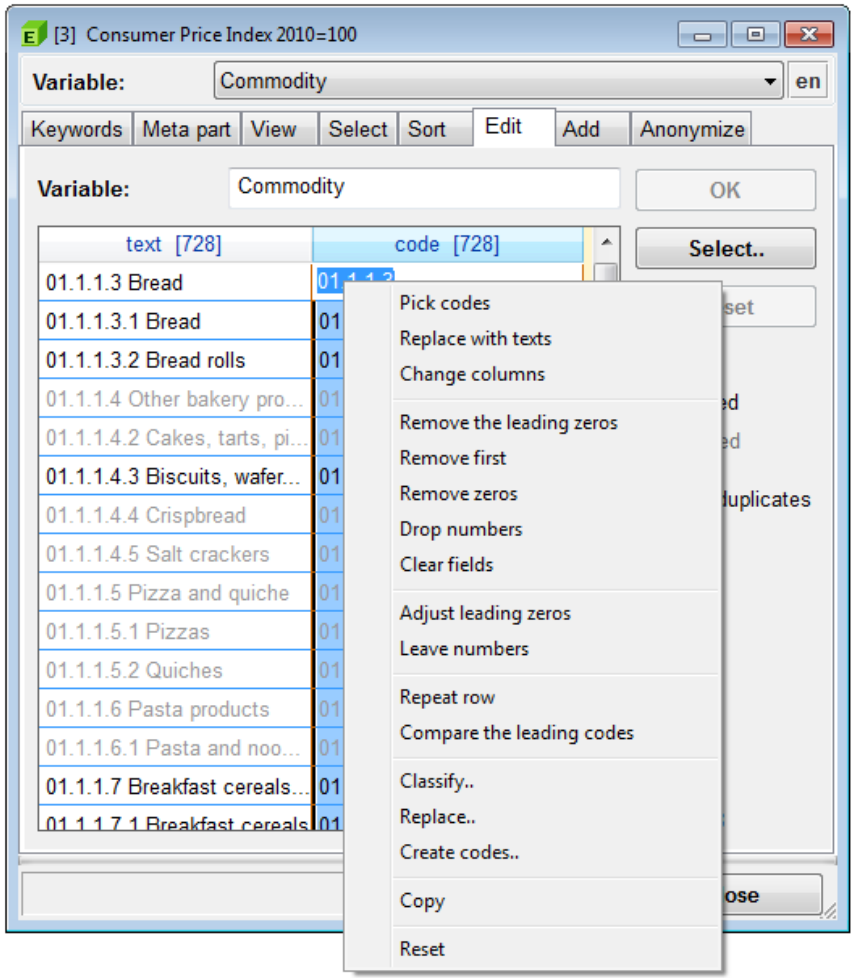
Browsing the classification file



	Short character code	Character code	Finnish name
004	AF	AFG	Afganistan
528	NL	NLD	Alankomaat
530	AN	ANT	Alankomaiden Antillit
008	AL	ALB	Albania
012	DZ	DZA	Algeria
016	AS	ASM	Amerikan Samoa
020	AD	AND	Andorra
024	AO	AGO	Angola
660	AI	AIA	Anguilla
010	AQ	ATA	Antarktis
028	AG	ATG	Antigua ja Barbuda
784	AE	ARE	Arabiemiirikunnat
032	AR	ARG	Argentiina
051	AM	ARM	Armenia

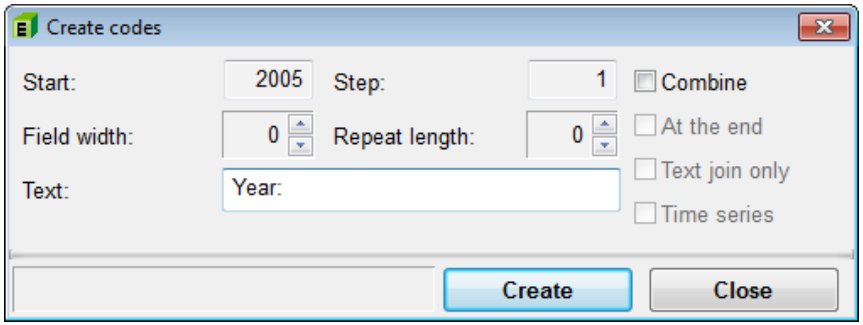
- The upper part shows any file comments
- The lower part shows the different classifications from the table
  - the column headers = the classification titles
  - the row headers = the codes

Edit: codes menu



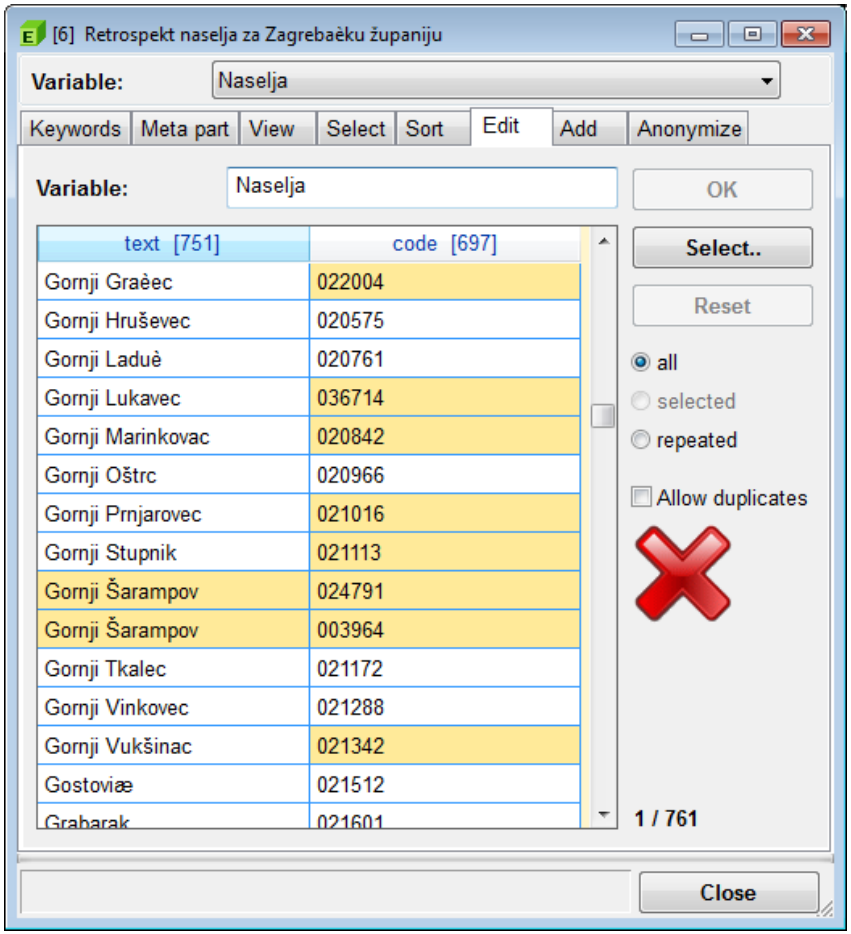
- Pick codes
  - copy the leading codes from the texts
- Replace with texts
  - replace codes with corresponding texts
- Adjust leading zeros
  - if necessary pad the selected codes to the same width with leading zeros
- Remove the leading zeros
  - drop all leading zeros
- Clear fields
  - empty the selected lines
- Classify
  - standardise codes according to the texts

Code creating



- Create new numeric codes
  - only for selected rows
  - normal case: start: `1`, step: `1` will create codes `1`, `2`, `3`, …
  - the codes will have the same length (i.e. if necessary they are padded with leading zeros)
  - field width > `0` fixes the code width (if needed padding with leading zeros)
  - a fixed leading text may be used
  - the *Repeat length* setting cycles through the integers
  - *Time series* will be active if the current variable has *TIMEVAL* setting
    - selecting this overrides all other settings

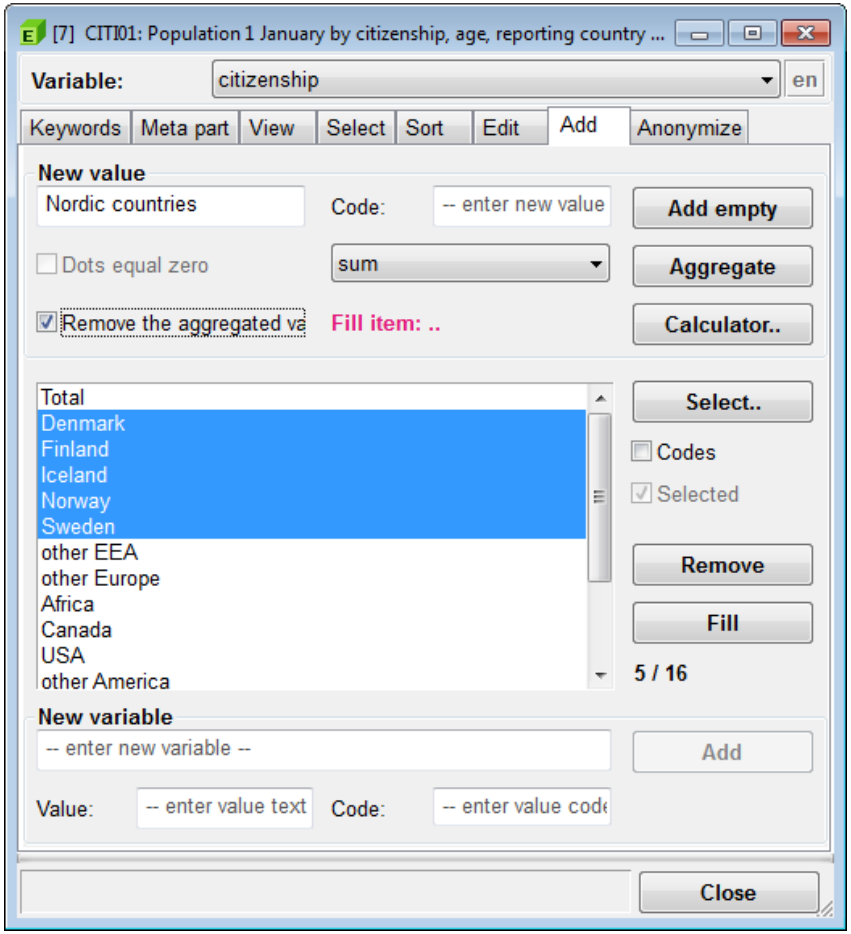
Repeated value texts



- All the value texts must be unique
  - PC-Axis tables cannot function properly with repeated value texts or codes!
- PX-Edit allows unique value text handling and code combinations (with nagging)
  - all repeated texts will be shown with the repeated radio button
  - the repeated text input needs to be allowed separately via the Allow duplicates check box (use with caution)
    - this activates the **OK** button

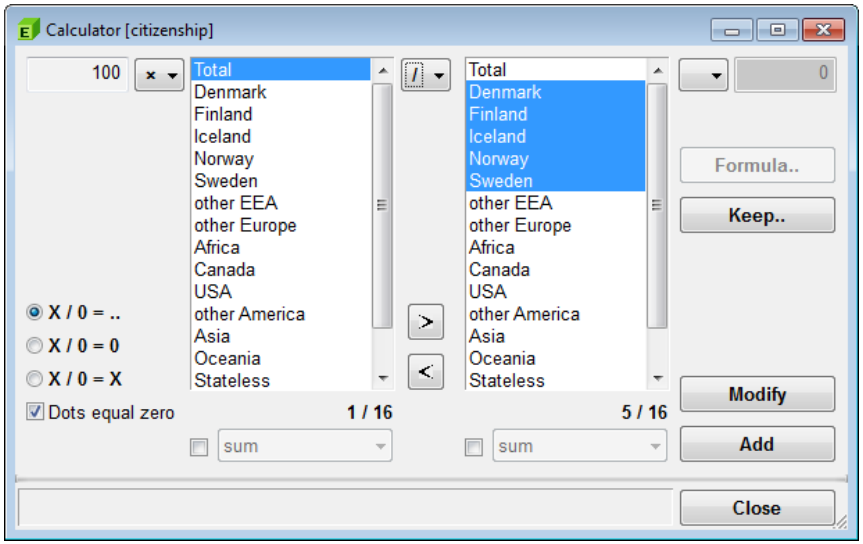
Metadata editor: Add

Add Tab



- Add new empty values
  - input new name and code
  - press the **Add empty** button
- Add aggregated values
  - select the values from the value list
  - determine the dot code behaviour
  - select the aggregation function
  - press the **Aggregate** button
- Add complicated values
  - use the *Calculator*
- Add new variables
  - input new name and the first value
  - press the **Add** button

Calculator



- Meant for complicated calculations
  - calculations should usually have been done **earlier**
- Modify existing values or add new ones
- The value lists and constant fields activate depending on the function selections
- Selected values may be aggregated
- Dot code and zero dividing behaviour is configurable

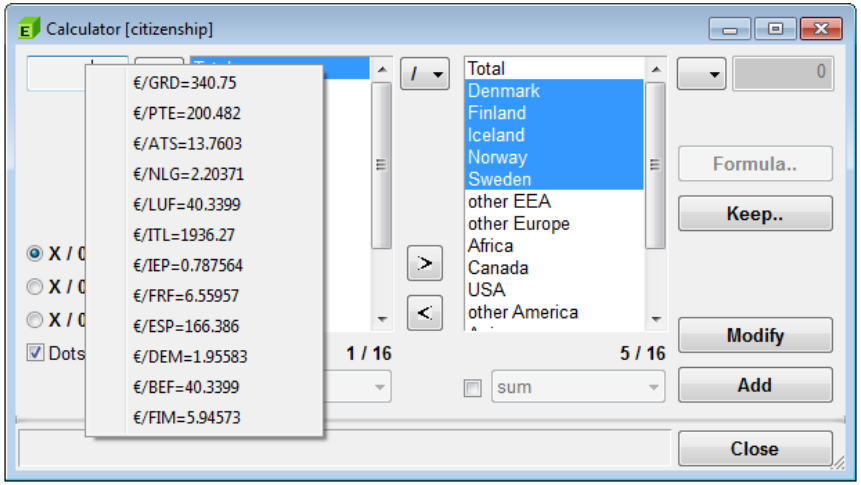
Calculator: principle

- The mnemonic formula: `x @ left @ right @ y`

  where:

`x, y`	constants
`left, right`	selected values or their sum (the right list is always active)
`@`	calculating function (`+`, `-`, `x`, `/` or `%`) NB the function selection activates the corresponding input field

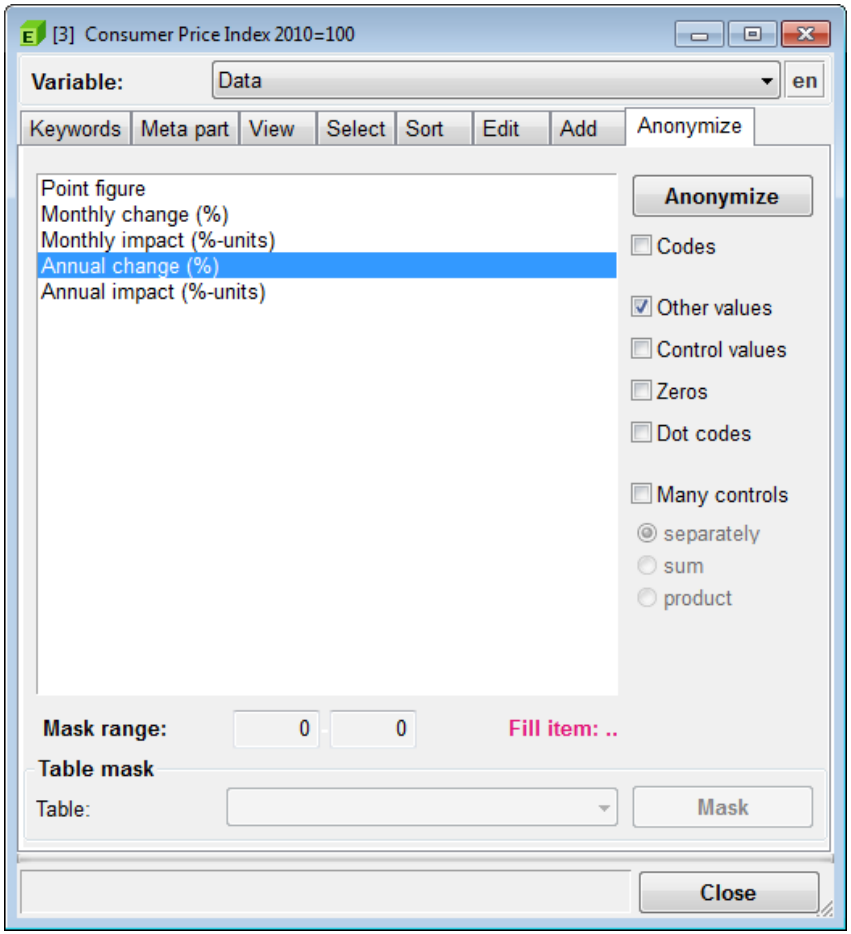
Calculator: formulae



- Formulae may be kept (used in the same session) or saved in a file for later use
- Constants may be selected from the drop down lists (double-click the field)

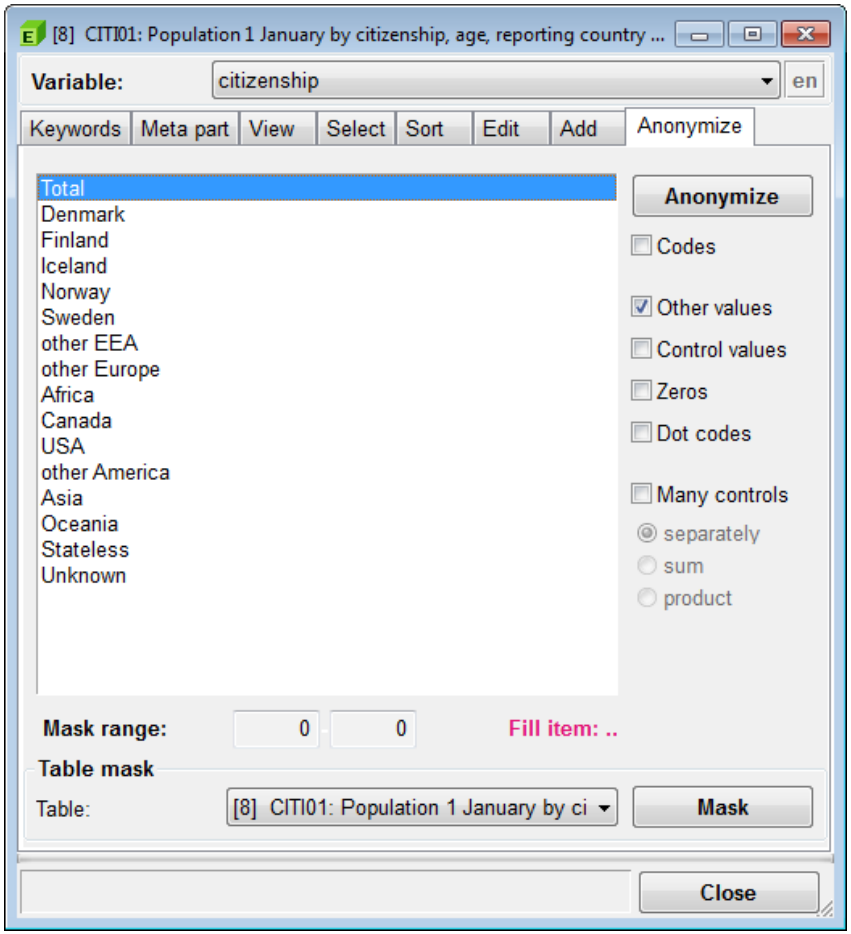
Metadata editor: Anonymize

Anonymize Tab



- Select needed values in the *Select* Tab
- Select the triggering value name (e.g. quantity value)
- Give the threshold range
- The **Anonymize** button will replace all the other values with the *Fill Item* when the trigger value belongs to the given range
- Switches for more complicated cases
- Data anonymizing cannot be undone

Anonymize: table mask



- The data part of the mask table must be of the same size (rows x columns) as the table to be managed
- The mask table contains data and dot codes
- The resulting table will have the data from the original table and the dot codes from the mask table

Anonymizing: example

Original table

[1] Causes of death 1969-2009

File Edit Window Language

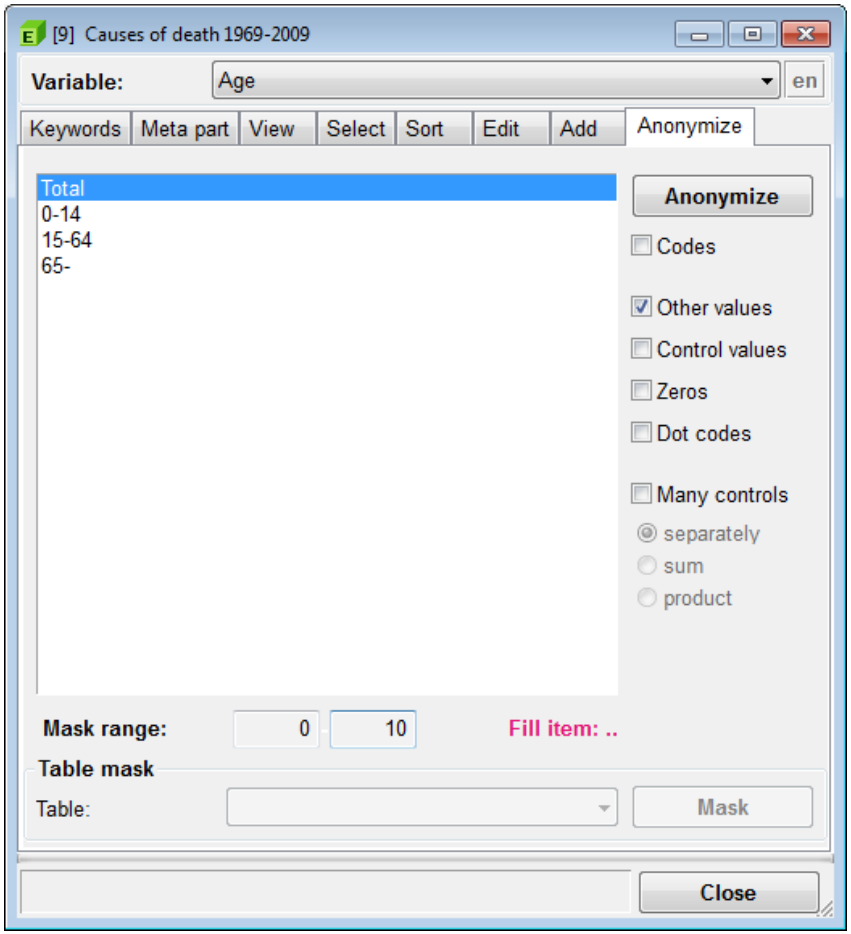
	Total	0-14	15-64	65-
01-72 TOTAL DEATHS (A00-Y89)	49904	241	10653	39010
01-58 ALL DISEASES (A00-R99)	45597	222	8042	37333
01-05 I CERTAIN INFECTIOUS AND PAR...	430	4	72	354
01 Tuberculosis (A15-A19, B90)	54	0	4	50
02 Meningococcal infection (A39)	3	0	2	1
03 Viral hepatitis (B15-B19)	13	0	10	3
04 Human immunodeficiency virus (HIV) d...	3	0	3	0
05 Other infectious and parasitic disease...	357	4	53	300
06-24 II NEOPLASMS (C00-D48)	11310	22	2968	8320
06-23 Malignant neoplasms (C00-C97)	10996	21	2923	8052
06 Malignant neoplasm of lip, oral cavity, ...	178	0	85	93
07 Malignant neoplasm of oesophagus (C...	233	0	80	153
08 Malignant neoplasm of stomach (C16)	487	0	141	346
09 Malignant neoplasm of colon (C18, C19)	749	0	145	604
10 Malignant neoplasm of rectum and anu...	361	0	99	262
11 Primary malignant neoplasm of liver (C...	464	1	104	359
12 Malignant neoplasm of pancreas (C25)	948	0	243	705
13 Malignant neoplasm of larynx, trachea	2069	0	593	1476

89 rows x 4 columns = 356 figures

en

- All the age groups, where **Total** is not greater than 10, should be masked with the *Fill item*

Needed settings



- Total is selected as the control value
- The mask range is set as `0..10`
- **Anonymize** button will first show the confirmation window, and pressing *Yes* gives...

Anonymized table

[1] Causes of death 1969-2009

File Edit Window Language

	Total	0-14	15-64	65-
01-72 TOTAL DEATHS (A00-Y89)	49904	241	1653	1010
01-58 ALL DISEASES (A00-R99)	45597	222	1042	1333
01-05 I CERTAIN INFECTIOUS AND PAR...	430	4	72	354
01 Tuberculosis (A15-A19, B90)	54	0	4	50
02 Meningococcal infection (A39)	3	0	....	....
03 Viral hepatitis (B15-B19)	13	0	10	3
04 Human immunodeficiency virus (HIV) d...	3	0	....	0
05 Other infectious and parasitic disease...	357	4	53	300
06-24 II NEOPLASMS (C00-D48)	11310	22	1968	1320
06-23 Malignant neoplasms (C00-C97)	10996	21	1923	1052
06 Malignant neoplasm of lip, oral cavity, ...	178	0	85	93
07 Malignant neoplasm of oesophagus (C...	233	0	80	153
08 Malignant neoplasm of stomach (C16)	487	0	141	346
09 Malignant neoplasm of colon (C18, C19)	749	0	145	604
10 Malignant neoplasm of rectum and anu...	361	0	99	262
11 Primary malignant neoplasm of liver (C...	464	1	104	359
12 Malignant neoplasm of pancreas (C25)	948	0	243	705
13 Malignant neoplasm of larynx, trachea	2069	0	593	476

89 rows x 4 columns = 356 figures 7 rows were masked. en

- The *Fill item* has been set as four dots for clarity
- Zeros were not masked as default
  - if that would have been necessary, the *zeros* check box would have done the trick