PC-Axis 2008 – user's manual

PC-Axis 2008 main module including function to create own aggregations

News in PC-Axis 2008

Change variable order on graph screen - new button to easily transform the table to time series.

Save change of texts when recording to pxq file - the text for contents was introduced in 2007, now change of units and variable names can also be made. Remove lines with 0, "-"and dots

Save to Google earth, show data on Google Map

LIST OF CONTENTS

| TO INSTALL PC-AXIS | 2 |
|--|----------------|
| SOME INFORMATION ON PC-AXIS AND ITS HELP FUNCTIONS | 2 |
| A WALK THROUGH OF THE TOOLBAR | 3 |
| OPEN A DATABASE IN PC-AXIS. | 4 |
| MAKE A TABLE IN PC-AXIS | 5 |
| TO SAVE A TABLE | 11 |
| TO EDIT A TABLE IN PC-AXIS | 13 |
| TO DO SIMPLE CALCULATIONS USING PC-AXIS | 15 |
| UPDATING TABLES | 17 |
| TO MAKE GRAPHS IN PC-AXIS | 18 |
| PX-MAP – PRESENTS THE STATISTICS AS A THEMATIC MAP | 20 |
| ABOUT ADVANCED FUNCTIONS IN PC-AXIS | 21 |
| TABLE SIZE | 24 |
| CLASSIFICATIONS | 25 |
| TO CREATE A CLASSIFICATION BASED ON AN EXISTING VALUE SET TO CREATE A CLASSIFICATION BASED ON A NEW VALUE SET What is wrong? | 26 29 29 |
| SAVED QUERIES IN PC-AXIS MAIN MODULE | 30 |
| LIST ON ACTIONS THAT CAN BE RECORDED IN THE MAIN MODULE OF PC-AXIS (PXQ) | 35 |
| PXQ XML FILES | 35 |
| HISTORY | 39 |
| PC-AXIS FOR DISSEMINATION OF STATISTICS FROM OTHER ORGANISATIONS | 39 |
| OVERVIEW OF THE PC-AXIS FAMILY SOFTWARE | 39 |
| CONTACT PERSONS | 40 |

To install PC-Axis

PC-Axis can be downloaded from the PC-Axis website: http://www.scb.se/Pages/List____314051.aspx

When PC-Axis has been downloaded from the website, follow the instructions in the installation program.

Some information on PC-Axis and its help functions

There a few things good to know before you start using PC-Axis for the first time. If you let the mouse stay over a tool key in the toolbar a small yellow frame will tell the purpose of that very tool key.

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If you need more help, please use the tool key that opens the help function. It is on the far right position in the toolbar. This key is the way to get help for menus, commands and how to work with PC-Axis. Press the F1 keyboard key to get context related help wherever you are in PC-Axis.



| A walk t | hrough of the toolbar |
|-------------------|------------------------|
| à | Open a database |
| * | Footnote |
| \$ | Select new values |
| | Save |
| 8 | Print out |
| $\mathbf{\Sigma}$ | Undo |
| | Сору |
| Ħ | Pivot (clockwise) |
| Ē | Pivot (anti-clockwise) |
| | Pivot any option |
| Σ | Sum |
| % | Percent |
| ‰ | Per mille |
| + | Add |
| | Subtract |
| x | Multiply |
| + | Divide |
| | More information |
| | Graphs |
| ۲ | Maps |
| 8 | Search help |

PC-AXIS 2007

Open a database in PC-Axis.

| PAX P | C-AXI | S | | | | | | | | |
|--------------|---------|--------------|---|---|---|----------|---|---|---|---|
| <u>F</u> ile | ⊻iew | <u>H</u> elp | | | | | | | | |
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| |)pen da | atabase | | | | | | | | |
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Picture 1.

When you are opening a table in PC-Axis, there are optional ways of doing it. If the program is running, you just press <u>File</u> – <u>Open</u> Database or you can click on the

button button and you will find the catalogue that contains the current database or table. On this picture you can see the PC-Axis files all having the extension PX.

| Tables Drive: C: All Folders | Tables in c:\cd2003\Database\Sweden\Population\Population stat | istics | | × |
|--|---|--|--|---|
| Island Major City Regions Major City Regions Norge Norge Norge Norge Nunatta Storstadsregioner Suomi Sweden Environment Financial markets Housing and construction National accounts Population forecast Population forecast Population statistics | Description Population by region, age, period, sex and marital status. Population growth by region, age, period, sex and marital status. Population growth by region, age, period, sex and marital status. Mean population by region, age, period, sex and marital status. Mean population by region, age, period, sex and age. Foreign-bit period, sex and sex. Population by region, age, period and sex. Population is maller localities by region and period. Population by region and period. | File name BE0101A1.px BE0101A2.px BE0101A2.px BE010182.px BE010182.px BE010182.px BE010185.px BE01015.px BE010101.px BE010151.px BE010151.px BE010151.px BE010151.px BE010151.px BE010151.px BE010151.px | Date 2003.05-06 09: 2003.05-06 09: 2003.05-06 09: 2003.05-15 15: 2003.04-29 13: 2003.04-29 13: 2003.04-06 09: 2003.04-06 09: 2003.04-29 12: 2003.04-29 13: 2003.04-29 12: | Size, kB 1367 1323 1383 1323 1383 1383 2821 108 329 2541 17 143 101 |
| c:\cd2003\Database\Sweden\Population\P | opulation statistics\BE0101A4.pxOK | Cancel | <u>C</u> hange Cla | sification |



To be able to use the Classification function (see below) you must set the right catalogue for the classifications belonging to the current database. It can be changed using the button Change Classification. See in Picture 2.

When you are going to select a new table you either can click on it, or mark it using the mouse and then press the ENTER key.

Let us say that you are interested in Population statistics – press the subject "Population", select the sub catalogue "Population statistics" and then select the table named Mean population by region, age, period and sex. See Picture 3.

Make a table in PC-Axis

Now it is time to select values for the variables – decide what the table shall contain.

| c:\PC_Axis2006\Database\Sweden\Population\Population statistics\BE0101 | А1.рх 🗙 |
|---|---------------------------|
| BE0101A1: Population | OK |
| | Cancel |
| Units: number | <u>A</u> ll |
| | Aggregate |
| Variable: period. Elimination not allowed | ∠oom |
| region 312 marital status 4 age 102 | Long texts |
| 00 Sweden isingle 01 Stockholm county imarried 0114 Upplands Väsby widowers/widows 0115 Vallentuna divorced 0117 Österåker 3 0120 Värmdö 0123 Järfälla | Show hierarchy |
| period 2 sex 2 Sel 2002 men | ected values: RL+mause |
| 2003 Women Click here to select all values | |

Picture 3

button All.

- Select values to the table
 If you desire all values in a variable you can click on the name bar for the very variable selection box. As in sample on Picture 3, where all, two, values will be selected by clicking on the word sex.
 If you only want some of the values, just press the CTRL-button at the same time as you click the left mouse button on the desired values. Then only those selected will be put into the table.
 How to select all
 If you wish to get all the variables and all their variable values, just click on the
 - About classification of values All variables can be grouped into a classification if desired. It shall be done before you select all variables with the "<u>All</u>" button. See Pictures 4 and 5.

You can use the classifications if you have a table that is more detailed than you want it to be, for example one-year classes or municipalities. You can create your own age classifications or make your own areas based on the municipalities.

If you want to classify on variable age – in the selected table it is in one-year classes, and you would prefer it to be five-year classes.

On the picture where you select the variables there is a button named Aggregate. Press it and it looks like Picture 4. You will find what is available for classification for this very table, in this case the variables age and region. We select age.

| Select variable | | × |
|-----------------|--------|---|
| region age | OK | |
| | Cancel | |
| | | |

Picture 4

Press OK. In next window you will find a list showing the different classifications available.

| Select Aggregation List | × |
|---------------------------------|--------|
| Variable: age | ОК |
| 10-yearclasses 5-yearclasses | Cancel |



Select the 5-yearclasses and press on the OK button.

Then you will come back to Picture 3, but the list of ages has been changed to 5yearclasses:

| c:\PC_Axis2006\Database\Sweden\Population\Population statistics\BE0101A1 | .ря 🔀 |
|---|----------------|
| BE0101A1: Population | ОК |
| | Cancel |
| Units: number | All |
| | Aggregate |
| Variable: period. Elimination not allowed | Zoom |
| region 312 marital status 4 5-year intervals 21 | Long texts |
| 00 Sweden ▲ 01 Stockholm county ■ 0114 Upplands Väsby widowers/widows 0115 Vallentuna divorced 01120 Värmdö 90-94 0120 Värmdö ▼ 0123 Järfälla ▼ | Show hierarchy |
| period 2 sex 2 2002 men women women | |

Picture 6 a

When all selections are finished, click OK and the table appears on the screen.

If there are very long texts on the variable values there is an option in PC-Axis to get an alternative menu. Just press the button Long texts and you get the picture 6b below instead:

| c:\PC_Axis2006\Database\Sweden\Population\Population statistics\BE0101A1. | рх _ 🔲 | × |
|---|--------------------------|---|
| BE0101A1: Population | ОК | |
| | Cancel | |
| Units: number | AI | |
| | All for <u>v</u> ariable | |
| Variable: sex. Elimination not allowed | Aggregate | |
| | Show hierarchy | |
| 5-year intervals (Selected 21 of 21) period (Selected 1 of 2) sex (Selected 2 of 2) | •• | |
| women | | |
| Use this layout as default | <u>S</u> hort texts | |

Figure 6 b.

If you tick the option "Use this layout as default", the only way to alter back to the original layout can be done in the menu View, Advanced, the tag "Information" where you can tick the box "Show value selection in layout with small list boxes". If you immediately would like to turn back to narrow lists, just click the button "Short texts".

The table will appear similar in both cases.

| | ile Edit C- | louisto V | iou Mine | How Hole | | opulatio | in opened | | tistics ii | | 01711 | - p] | | | - 10 |
|--------|---------------------------|---------------------|------------------|---------------|-----------|----------|-----------|---|------------|-----|-------|------|-------|------|------|
| ~ 1 | ne <u>c</u> ak <u>c</u> a | iiculate <u>v</u> i | iew <u>w</u> ind | nom Heit | , | 1 | | | | | - | | | | |
| Ż | * 💠 🕒 | 182 | | ∓ ™ * | | ~ ‰ | + - × | ÷ | | . 🐡 | 8 | | | | |
| | A | В | C | D | E | F | G | | | | | | | | |
| 1 | Mean popu | liacion by | region, : | o-yearcia | sses, pei | 100 | | | | | | | | | |
| 2 | anu sex. | 1997 | | 2000 | | 2001 | | | | | | | | | |
| э 4 | | Mon | Women | Mon |) (omon | Mon | Women | | | | | | | | |
| 4 | 00 Sweden | Men | women | Men | women | men | women | | | | | | | | |
| 6 | 00 3 Weden | 273910 | 261103 | 237667 | 225619 | 234563 | 222247 | | | | | | | | |
| 7 | 5.9 | 311548 | 294914 | 306059 | 290905 | 292851 | 278807 | | | | | | | | |
| R | 10-14 | 265499 | 250972 | 295241 | 279768 | 306524 | 290550 | | | | | | | | |
| 9 | 15-19 | 257671 | 245385 | 260267 | 246371 | 264295 | 249528 | | | | | | | | |
| 0 | 20-24 | 284295 | 273273 | 264190 | 254366 | 262816 | 253373 | | | | | | | | |
| 1 | 25-29 | 307635 | 295894 | 301940 | 291726 | 298385 | 288161 | | | | | | | | |
| 2 | 30-34 | 335493 | 317154 | 324572 | 310024 | 318075 | 305392 | | | | | | | | |
| 3 | 35-39 | 298526 | 285308 | 318476 | 303389 | 328930 | 312662 | | | | | | | | |
| 4 | 40-44 | 299385 | 289038 | 298117 | 287357 | 297255 | 286645 | | | | | | | | |
| 5 | 45-49 | 315607 | 307753 | 296851 | 289163 | 296215 | 288383 | | | | | | | | |
| 6 | 50-54 | 328290 | 317461 | 327237 | 320973 | 319216 | 313621 | | | | | | | | |
| 7 | 55-59 | 242681 | 239471 | 290365 | 282921 | 307550 | 299748 | | | | | | | | |
| 8 | 60-64 | 198051 | 207013 | 216354 | 220577 | 222999 | 225789 | | | | | | | | |
| 9 | 65-69 | 185062 | 208276 | 180651 | 199095 | 181531 | 197748 | | | | | | | | |
| 0 | 70-74 | 173941 | 209527 | 165337 | 198700 | 163932 | 196331 | | | | | | | | |
| 1 | 75-79 | 145539 | 196381 | 147089 | 196361 | 143428 | 190150 | | | | | | | | |
| 2 | 80-84 | 89625 | 144817 | 93575 | 147482 | 98479 | 153568 | | | | | | | | |
| 3 | 85-89 | 43804 | 89558 | 46165 | 93258 | 46648 | 93631 | | | | | | | | |
| 4 | 90-94 | 12374 | 34419 | 14105 | 38658 | 14658 | 39555 | | | | | | | | |
| | | | | | | | | | | | | | | | |
| ess | F1 for Help | | | | | | | | | | | | R= 25 | C= 6 | |

Picture 7

Now you can click on the tool key with the icon of a star that gives the footnote information for this very table. In this case latest up date, source, contact persons etc.

| Note: | When summing the mean population (for instance into 10-year groups), round sums may be accumulated. This may cause somewhat high totals. | Í |
|----------------|---|---|
| Footnote: | Mean population refers to the average value of, for instance the number of 5-years old at the end of year n and the number of 5-years old at the end of year n+1. | |
| region: | Since 1 January 1999, a new regional division has been established. Parts of Södertälje municipality (code 0181) have formed a new municipality called Nykvarn (code 0140). | |
| Latest update: | 2002-02-27 09:57 | |
| Source: | Statistics Sweden | |
| Contact: | Ewa Eriksson, SCB Tel: +4619176743 | |

If there is additional information available the icon showing a little book in the toolbar will be activated. Press it and the book will lead you to additional documents concerning this very material. It will be opened according what type of text file it is written.

If you have a table containing a hierarchy as in the case below in the variable region it will look like this:

| c:\PC_Axis2006\Database\Population\BE0101A1hier.px | × |
|---|---|
| BE0101A1: Population Units: number Total no of cells: 9984 | OK Cancel |
| Variable: region. Elimination value: 00 Sweden region 312 Marital status 4 Single men Widowers/widows women 0112 Värndö vidowers/widows | Aggregate Zoom Long texts Show hierarchy |
| period 4 2001 2002 2003 2004 | |

Click on the button"Show hierarchy" and the following window will turn up where you can select freely from the values:

| c:\PC_Axis2006\Database\Population\BE0101A1hier.px | × |
|--|----------------|
| | |
| BE0101A1: Population | 0K. |
| □ □ 00 Sweden | |
| □ □ □ □ 01 Stockholm county | Cancel |
| 0114 Upplands Väsby | 6.U |
| 🗖 0115 Vallentuna | <u>A</u> II |
| 🗌 🛄 0117 Österåker | Aggregate |
| 🗖 0120 Värmdö | Aggregate |
| 🛛 🔲 0123 Järfälla | Zoom |
| 0125 Ekerö | 20011 |
| | Long texts |
| | 2003 0000 |
| | Hide hierarchy |
| | |
| U 0130 Tytes0 | Select all |
| | |
| | Clear all |
| 0162 Dandervd | |
| 1 0163 Sollentuna | Open all |
| 🗖 0180 Stockholm | |
| 🗖 0181 Södertälje | Close all |
| 0182 Nacka | |
| 🗖 0183 Sundbyberg | |
| 🗖 0184 Solna | |
| 🗖 0186 Lidingö | |
| 0187 Vaxholm | |

| RAX PC | -AXIS - [c:\PC_Axis2006\D | atabase\P | opulation\E | 3E0101A1h | ier.px] | | | | | l × |
|--------|--|---------------------|---------------|------------|-----------|-----------|-----------|-----------|-----------|------------|
| 💭 E | ile <u>E</u> dit <u>⊂</u> alculate <u>V</u> iew <u>W</u> | (indow <u>H</u> elp | | | | | | | _ 8 | <u>I</u> × |
| ê | * 💠 🖶 🎒 😫 | 和前は | Σ % | ‰ + | - × ÷ | | • ? | | | |
| | A | В | С | D | E | F | G | Н | 1 | |
| 1 | Population by region, sex | , period and | l marital sta | atus | | | | | | |
| 2 | | Men | | | | Women | | | | |
| 3 | | 2003 | | 2004 | | 2003 | | 2004 | | |
| 4 | | Single | Married | Single | Married | Single | Married | Single | Married | |
| 5 | 00 Sweden | 2 431 699 | 1 544 702 | 2 449 038 | 1 544 045 | 2 102 531 | 1 550 010 | 2 119 301 | 1 549 689 | |
| 6 | 01 Stockholm county | 517 611 | 296 050 | 522 028 | 297 649 | 469 747 | 297 876 | 473 644 | 299 470 | |
| 7 | 0114 Upplands Väsby | 10 288 | 6 267 | 10 336 | 6 247 | 9 189 | 6 348 | 9 228 | 6 343 | |
| 8 | 0115 Vallentuna | 7 177 | 4 729 | 7 360 | 4 828 | 6 407 | 4 759 | 6 546 | 4 846 | |
| 9 | 0117 Österåker | 9 679 | 6 808 | 9 913 | 6 872 | 8 524 | 6 802 | 8 732 | 6 859 | |
| 10 | 0120 Värmdö | 9 1 1 0 | 5 906 | 9 385 | 6 044 | 8 241 | 5 812 | 8 477 | 5 981 | |
| 11 | 0123 Järfälla | 16 251 | 10 972 | 16 264 | 11 021 | 14 392 | 11 087 | 14 266 | 11 143 | |
| 12 | 0125 Ekerö | 6 085 | 4 474 | 6 152 | 4 545 | 5 562 | 4 491 | 5 652 | 4 546 | |
| 13 | 0126 Huddinge | 24 128 | 14 747 | 24 286 | 14 796 | 21 619 | 14 924 | 21 768 | 15 009 | |
| 14 | 0127 Botkyrka | 20 084 | 13 407 | 20 104 | 13 507 | 17 581 | 13 475 | 17 553 | 13 599 | |
| 15 | 0128 Salem | 3 756 | 2 606 | 3 789 | 2 617 | 3 504 | 2 625 | 3 517 | 2 630 | |
| 16 | 0136 Haninge | 19 893 | 11 737 | 19 818 | 11 789 | 17 574 | 11 808 | 17 542 | 11 863 | |
| 17 | 0138 Tyresö | 11 072 | 6 859 | 11 270 | 6 912 | 10 007 | 6 91 9 | 10 1 4 3 | 6 999 | |
| 18 | 0139 Upplands-Bro | 5 815 | 3 707 | 5 826 | 3 716 | 5 060 | 3 743 | 5 112 | 3 758 | - |
| • | - | | | | | | | | | • |
| Press | F1 for Help | | | | | F | R= 316 | [| C= 8 | 1 |

If you select all the values the table will be presented with a hierarchical layout.

If you make a selection from the region variable the hierarchical layout will disappear:

| PAX P | C-AXIS - [c:\PC_Axis2 | 006\Datab | ase\Popula | tion\BE010 |)1A1hier.p> | 4] | | | _ | | | | | |
|-------|-----------------------|--------------|------------|-------------|-------------|-----------|-----------|-----------|-----------|---|--|--|--|--|
| | | | | | | | | | | | | | | |
| | A | B | | D | E | F | G | H | I | | | | | |
| 1 | Population by region | n, sex, peri | od and mar | ital status | | | | | | | | | | |
| 2 | | Men | | | | Women | | | | | | | | |
| 3 | | 2003 | | 2004 | | 2003 | | 2004 | | | | | | |
| 4 | | Single | Married | Single | Married | Single | Married | Single | Married | | | | | |
| 5 | 00 Sweden | 2 431 699 | 1 544 702 | 2 449 038 | 1 544 045 | 2 102 531 | 1 550 010 | 2 119 301 | 1 549 689 | | | | | |
| 6 | 01 Stockholm county | 517 611 | 296 050 | 522 028 | 297 649 | 469 747 | 297 876 | 473 644 | 299 470 | | | | | |
| 7 | 0114 Upplands Väsby | 10 288 | 6 267 | 10 336 | 6 247 | 9 189 | 6 348 | 9 228 | 6 343 | | | | | |
| 8 | 0115 Vallentuna | 7 177 | 4 729 | 7 360 | 4 828 | 6 407 | 4 759 | 6 546 | 4 846 | | | | | |
| • | _ | · | · | | · | | ^ | | | • | | | | |
| Pres | s F1 for Help | | | | | | R= 8 | | C= 8 | | | | | |

To save a table

When you are satisfied with the layout of the table you can save it on your hard disc or a server. Use the pull down menu" \underline{F} ile, Save \underline{a} s. "

| PAX | PC-AXIS | - [c:\Doci | iment | s and Se | tting | s\scblev | ve\Skriv | vbord\E | xempeli | filer\BEC |)2. p> | <] |
|----------------------|---|---|---|--|---|--|--|-------------------------------|------------------|-----------|--------|----|
| 爭 | File Edit | Calculate | View | Window | Help | | | | | | | |
| | Open D. Import. | atabase | | | | | | | Ctrl+O Ctrl+I | | | Ŷ |
| 1 2 3 4 | Close Save Save as | e | | | | | | | Ctrl+S | - | | |
| 5 | Page lay Print pre | yout eview | | | | | | | | - | | |
| 7 8 9 | Start re | cording to s | ave qu e aved qu | ery | | | | | Ctrl+P | - | | |
| 10 11 12 12 | Run sav Mainten Databas | ance se contents. | | | | | | | | - | | |
| 14 | Classific Excel | ation | | | | | | | | - | | |
| 16 17 18 19 | 1 c:\Doo 2 c:\Doo 3 c:\Doo 4 c:\Viel | cuments and cuments and cuments and tnam_okt20 | d Settin d Settin d Settin 11\PC-/ | gs\scblew gs\scblew gs\scblew Axis_main | e\Skrivt e\Skrivt e\Skrivt module\ | oord\Exem oord\Exem oord\Exem Exercises | npelfiler\B npelfiler\B npelfiler\B ;\CPILG.p | 8E02.px 8E01.px 8E03.px | | | | |
| 20 21 22 | Exit 5 ár Män | 52819 |) | | | _ | _ | _ | _ | | | |

Picture 8

Then a windows turns up where you can enter where to save the file and name the file.

| Save To | | | x |
|------------------------------------|--------------|---|---|
| To <u>D</u> atabase <u>Convert</u> | | | 1 |
| File Name: | Directories: | | |
| HA0101A1.PX | Location | | |
| J0060125.px NR010312.PX | | OK | |
| PR0101B3.2X | | Cancel | |
| | | <u>N</u> ew folder | |
| Name | Drives: | | |
| Subject Area: Population | | Update subject area in table files with selected folder | |
| Description: | | E Save kom for data | |
| | | Save as DOS files | |
| | | | |

Picture 9

If you would like to save the table in another file format you just select the tag "Convert" as in Picture 10.

| Database Convert | | | |
|--|----------------|----------|--------------------|
| File Name: | Directories: | | |
| BE0101A1.xls | c:\a | | |
| BE0101A1.xls BE0101A1[11]vls | 🔁 c:\ | _ | ОК |
| BE0101A1[2].xls | aggreg | | Cancel |
| NV0109Z1.xls | 📃 asp | ▼ | |
| Tabell 3.1 NOSOSCO.xl tabell3.2.xls | Drives: | | <u>N</u> ew folder |
| | 🖃 c: [scblano] | • | |
| File Format: | | | E No (columbus |
| Excel 2.1 (*.xls) Lotus (* wk1) | | _ | |
| dBase (*.dbf) | | | |
| PC-AXIS file (*.px) | | _ | Uther footnotes |
| Table (*.txt) | | - | All information |

Picture 10

In the listbox File Format you can save the table in any of the optional file formats. In the tick boxes to the right you can decide what parts of the explaining information that shall accompany the table into the selected file format.

To edit a table in PC-Axis

If you are not satisfied with the layout of the table there are some different things to be done to change it.

The Pivot function can be used to let the variables change places in the table. Stub and heading can be switched according to your own needs. Press this button Ξ , which give you total freedom to move around with the variables. You are using a drag and drop technique as showed on Picture 11:

| Heading: Stub: Stub: Syearclasses Syearclasses Syearclasses Sub Syearclasses Sub Sub Sub | ≻ Change varia | ble order | | | × |
|--|----------------|-----------|--------|----------------|---|
| Stub: Tregion 5-yearclasses © Stub © Heading | | Heading: | period | OK | 1 |
| region 5-yearclasses ○ <u>S</u> tub ⓒ <u>H</u> eading | Shub | | 35A | Cancel | |
| © Heading | region | | | 6 a. i | |
| | 5-yearciasses | | | ○ <u>S</u> tub | |
| | | | | | |



When you are satisfied just press OK and the new table turns up. This can be repeated so you will really be satisfied with your table. You could also delete variable and values.

| RAX P | C-A | XIS - | [c:\Docu | iment | s and | d Sett | tin | gs\scbl | ew | e\Skr | ivbord\ | Exer | mpe | eli | filer\E | BEO' | l.px | d] |
|-------|-----|---------------------------------|-------------------|---------|-------|--------|------|---------|----|-------|---------|------|------|-----|---------|------|------|----|
| j≣ F | ile | Edit | Calculate | View | Wind | łow ł | Help |) | | | | | | | | | | |
| 2 | * | Ur | ndo | | | | C | Itrl+Z | 2 | ‰ | + - | × | • | - | | | ۲ | 8 |
| | | Ch | nange varial | ole ord | er | | | | | E | F | (| â | | | | | |
| 1 | Fc | Ch | hange value | order. | | | | | in | | | | | | | | | |
| 2 | | De | elete variabl | e | | | | | L | | 2002 | | | | | | | |
| 3 | | De | elete value. | | | | | | ٩v | innor | Män | Kvin | nor | | | | | |
| 4 | 01 | Cł | hange texts | | | | | | Г | | | | | | | | | |
| 5 | C | Ch | hange texts, | /codes | ••• | | | | Г | 9298 | 10322 | | 9248 | 8 | | | | |
| 6 | G | Ch | hange decim | als | | | | | Г | 6364 | 6272 | | 6321 | 1 | | | | |
| 7 | S | SP | olit time varia | able | | | | | Ē | 2216 | 1663 | | 2263 | 3 | | | | |
| 8 | Ä | Lir | nk with table | e | | | | | Γ | 1026 | 313 | | 1042 | 2 | | | | |
| 9 | 01 | 0 | verlay with t | able | | | | | Γ | | | | | 1 | | | | |
| 10 | C | Co | ру | | | | C | trl+C | Г | 6202 | 7069 | | 6289 | 9 | | | | |
| 11 | G | Fir | nd | | | | F | 3 | Г | 4708 | 4681 | | 4711 | 1 | | | | |
| 12 | S | Se | Select All Ctrl+4 | | | | | | Γ | 1233 | 948 | | 1260 | 0 | | | | |
| 13 | Ä | Select new values for the table | | | | | | | Γ | 731 | 211 | | 736 | 6 | | | | |
| 14 | 01 | | | | | | | | 1 | | | | | | | | | |
| 15 | 0 | gifta | | | 9156 | 79 | 990 | 9308 | | 8247 | 9458 | | 8404 | 4 | | | | |
| 16 | G | iífta 6575 6 | | | | | 597 | 6648 | | 6658 | 6718 | | 6719 | 9 | | | | |
| 17 | S | kilda | | | 1355 | 16 | 646 | 1422 | | 1699 | 1447 | | 1757 | 7 | | | | |

It is also possible to change the texts in the column headings and the stub. Use Edit Change texts... Here you mark the variables you want to modify, the variable name and also variable values are possible to change.

| 🚬 Change Texts | × |
|--|---------------------|
| Contents: Mean population | ОК |
| Units: | Cancel |
| number | |
| Variable: | |
| region 5-yearclasses period sex | <u>V</u> alue Texts |
| Enter new text for variable | |
| | |
| | |

In the second part of the Edit menu options to combine the active table with another table is available. Then the tables have to be similar. Table with table can be used when data for additional periods shall be put together with the original table, while Table on table is used if you have two tables with different contents, as imports and exports. Combination of tables also can be used in the software PX-Edit.

To do simple calculations using PC-Axis

There are some simple tasks able to carry out with the PC-Axis calculation toolbox. Let us study some samples.

Click on the pull down menu Calculate as showed on Picture 12 and you will find the different options.

| £. | * 💠 | <u>S</u> um | | :5:5 | Σ | 6 % | + - > | < ÷ | m 🖬 (|) ? | |
|----|---------|-------------------|---------------|----------|----------|------------|--------|--------|--------|------------|------|
| _ | A | Per cent | | | F | F | G | н | | | |
| 1 | Mean p | P <u>e</u> r 1000 | • | -yearcla | sses, pe | riod and : | sex. | | | | |
| 2 | | Add | | | 2000 | | | 2001 | | | |
| 3 | | S <u>u</u> btract | | Total | Men | Women | Total | Men | Women | Total | |
| 4 | 00 Swed | <u>M</u> ultiply | | | | | | | | | |
| 5 | 0-4 | <u>D</u> ivide | | 535013 | 237667 | 225619 | 463286 | 234563 | 222247 | 456810 | |
| 3 | 5-9 | Add table. | | 606462 | 306059 | 290905 | 596964 | 292851 | 278807 | 571658 | |
| 7 | 10-14 | Subtract ta | a <u>b</u> le | 516471 | 295241 | 279768 | 575009 | 306524 | 290550 | 597074 | |
| 8 | 15-19 | Multiply tal | bļe | 503056 | 260267 | 246371 | 506638 | 264295 | 249528 | 513823 | |
| 9 | 20-24 | Djvide tabl | le | 557568 | 264190 | 254366 | 518556 | 262816 | 253373 | 516189 | |
| 10 | 25-29 | 307635 | 295894 | 603529 | 301940 | 291726 | 593666 | 298385 | 288161 | 586546 | |
| 11 | 30-34 | 335493 | 317154 | 652647 | 324572 | 310024 | 634596 | 318075 | 305392 | 623467 | |
| 12 | 35-39 | 298526 | 285308 | 583834 | 318476 | 303389 | 621865 | 328930 | 312662 | 641592 | |
| 13 | 40-44 | 299385 | 289038 | 588423 | 298117 | 287357 | 585474 | 297255 | 286645 | 583900 | |
| 14 | 45-49 | 315607 | 307753 | 623360 | 296851 | 289163 | 586014 | 296215 | 288383 | 584598 | |
| 15 | 50-54 | 328290 | 317461 | 645751 | 327237 | 320973 | 648210 | 319216 | 313621 | 632837 | |
| 16 | 55-59 | 242681 | 239471 | 482152 | 290365 | 282921 | 573286 | 307550 | 299748 | 607298 | |
| 17 | 60-64 | 198051 | 207013 | 405064 | 216354 | 220577 | 436931 | 222999 | 225789 | 448788 | |
| 18 | 65-69 | 185062 | 208276 | 393338 | 180651 | 199095 | 379746 | 181531 | 197748 | 379279 | |
| 19 | 70-74 | 173941 | 209527 | 383468 | 165337 | 198700 | 364037 | 163932 | 196331 | 360263 | |
| 20 | 75-79 | 145539 | 196381 | 341920 | 147089 | 196361 | 343450 | 143428 | 190150 | 333578 | |
| 21 | 80-84 | 89625 | 144817 | 234442 | 93575 | 147482 | 241057 | 98479 | 153568 | 252047 | |
| 22 | 85-89 | 43804 | 89558 | 133362 | 46165 | 93258 | 139423 | 46648 | 93631 | 140279 | |
| 23 | 90-94 | 12374 | 34419 | 46793 | 14105 | 38658 | 52763 | 14658 | 39555 | 54213 | |
| 24 | 95+ | 1969 | 7614 | 9583 | 2264 | 9059 | 11323 | 2330 | 9558 | 11888 | |
| 1 | | | | | | | | | | | |

Picture 12

Let us try the percent calculation as is marked in the picture 12 above. Then the following window pops up:

| ≽ Select Base fo | or Per ce | nt Calculation | | | | × |
|------------------------------|-----------|--|----|--------------------------------|---|----------------------|
| region D0 Sweden | 1 | 5-yearclasses 0- 4 5- 9 10-14 15-19 20-24 25-29 30-34 | 20 | period 1997 2000 2001 | 3 | OK Cancel Zoom |
| sex men women Total | 3 | | | | | Initial values |

Picture 13.

If we wish to calculate the ratio female and male compared to the total we select the total for the variable sex as the base for the operation. Then you will be prompted a name of the new established value.

| PC-AXIS | × |
|---------------------------|--------|
| Enter name for new value: | ок |
| Per cent | Cancel |
| | |

Picture 14

PC-Axis will automatically suggest the name "Per cent", you can change it if you wish and then click OK.

Now all the figures will turn up on the screen. If you did not wish to have the initial values left in the table there is a possibility on the base selection window to tick according to your wishes. See picture 15.

| | ОК |
|---|------------------|
| | Cancel |
| | Zoom |
| (| _ Initial values |
| | • included |
| | |
| | |

Picture 15

Updating tables

If you have a table that contains the population in sixteen municipalities, distributed on age, sex and time (1995-2000), and the figures for 2001 has become published it is possible to update with the new figures instead of download the whole table again from Sweden's statistical databases on Internet.

You just link a table to another table (adding new values).

It is also possible to overlay a table with another table (adding a new variable), for example if immigration and emigration are retrieved from two separate tables they can be put together in a very large table using this function.

Please notice when using these two functions the tables have to be very similar. So if something is changed in one of the tables the other has to be changed in exactly the same manner to fit in together.

| PAX P | PC-AXIS - [c:\Documents and Settings\scblewe\Skrivbord\Exempelfiler\BE01.px] | | | | | | | | | | | | | | | |
|-------|--|---------------------------------|-----------------|----------|-------|------|-----|-------|-----|-------|-------|-------|-----|--|---|---|
| j∰ F | ile | Edit | Calculate | View | Windo | ow H | elp | | | | | | | | | |
| 2 | * | Ur | ndo | | | | Ct | :rl+Z | % | ‰ | + - | × | + | | ۲ | ę |
| | | Cł | nange variat | ole orde | er | | | | | E | F | G | | | | |
| 1 | Fc | Cł | hange value | order | | | | | in | | | | | | | |
| 2 | | De | elete variabl | е | | | | | L | | 2002 | | | | | |
| 3 | | De | elete value | | | | | | (vi | innor | Män | Kvinr | nor | | | |
| 4 | 01 | Cł | hange texts. | | | | | | | | | | | | | |
| 5 | C | Cł | hange texts/ | /codes. | | | | | | 9298 | 10322 | 9 | 248 | | | |
| 6 | G | Ch | hange decim | als | | | | | Г | 6364 | 6272 | 6 | 321 | | | |
| 7 | S | Sp | blit time varia | able | | | | | Г | 2216 | 1663 | 2 | 263 | | | |
| 8 | Ä | Lir | nk with table | | | | | | Г | 1026 | 313 | 1 | 042 | | | |
| 9 | 01 | 0 | verlay with t | able | | | | | F | | | | | | | |
| 10 | C | C | ру | | | | C | :rl+C | Γ | 6202 | 7069 | 6 | 289 | | | |
| 11 | G | Fi | nd | | | | F3 | } | Γ | 4708 | 4681 | 4 | 711 | | | |
| 12 | S | Se | elect All | | | | Ct | rl+A | | 1233 | 948 | 1 | 260 | | | |
| 13 | Ä | Select new values for the table | | | | | | | | 731 | 211 | | 736 | | | |
| 14 | 01 | 11.08 | | | | | | | 1 | | | | | | | |
| 15 | 0 | lgifta | | | 9156 | 799 | 90 | 9308 | | 8247 | 9458 | 8 | 404 | | | |
| 16 | G | iifta | | 6 | 6575 | 659 | 97 | 6648 | | 6658 | 6718 | 6 | 719 | | | |

Picture 16

To use these functions, click Edit and then Link with table../Overlay with table. See Picture 16.

You will then be prompted what catalogue to pick up the second table from. Be aware that you are only offered the tables that are possible to put together. Select the table you want to have and click OK. Then your table on the screen have got new values or variable.

If you are using Link with table it is a matter of adding a new time period.

When using Overlay with table it is because you have to similar tables possible to put together.

To make graphs in PC-Axis

When you have a table in PC-Axis it is possible to make a graph out from it. It is possible to make different types of graphs, like charts, line diagram and population pyramids. There is also possible to make thematic maps that will be showed later on.

If you want to make a graph, please click on this icon: and the picture below will turn up where you can select from different types of graphs.



Picture 17

| Sackground colour | gray | | | <u>S</u> how graph |
|-------------------------------------|----------------------|-----------------|---|--------------------|
| Title | | | X-Axis | |
| Mean population by 5-y | vearclasses, period, | region and sex. | 🔽 Show | |
| V Show | | Location | 🔽 Vertical text | |
| Rold | | | F Bold | |
| Font size | 12 | | Font size | 8 |
| Legend Show Bold Font size | 8 | | Y-Axis I Show I Vertical text I Bold | |
| Text length (if limit) | | | Font size | 8 |

If you press the button "Adjust.." you will get some options to change in the graph.

Picture 18

To coopy a graph You can use the option copy in the graph window and insert the graph into another Windows program like MS-Word and MS-Excel. Just click on this button

<u>С</u>ору

When arriving to the other program where the graph is supposed to be inserted use the "paste special" option using "bitmap" format. If not using this, a table will apear instead of the graph in the windows program.

Notice Notice that some of the graph options need a certain structure of the table. For example a population pyramid desires that the age variable is in the stub alone and the sex variable is as column heads. If you are violating these rules PC-Axis will tell you what is wrong for a certain type of graph.

When you have moved a diagram to Excel you must notice that it is just a picture which is not possible to adjust in Excel.

If you on the other hand transfer a table it is of course possible to continue to work on this table in Excel.

PX-Map – presents the statistics as a thematic map

Using the PX-Map makes it possible to transfer your table information into a thematic map. If you want a regional distributed table to be a map, just click the globe icon in the toolbar - . All tables cannot be presented as maps. If it is not possible the icon is non-collared.

This is how a thematic map in PX-Map looks like:



If you retrieve a table from the Sweden's Statistical databases there is not yet made any link to Maps.

To make a Map link If you insist to make a map from a table retrieved from Sweden's Statistical Database on the Internet, download the table in PC-Axis file format to your computer and save it. Then you open the file in a text editor like MS-Word. Search for a section looking like this:

TITLE="Mean population by region, age, period and sex."; CONTENTS="Mean population"; UNITS="number"; STUB="region","age"; HEADING="period","sex"; MAP("region")="Sweden_municipality";

Insert the line:

MAP("region")="Sweden_municipality";

You have to insert this line after STUB and HEADING which is in the beginning of the file.

When you save the file again (be aware of that MS-Word tries to change the extension of the file when saving in another file format than doc. Save in txt format and change the extension to PX) it is possible to find the file from PC-Axis and make a map in PX-Map.

About advanced functions in PC-Axis

The presentation of figures in the table cells can optionally hold thousand delimiters. Use the menu View, Advanced

| MX P | C-AXIS - | [c:\Docu | ments and Settings\scblewe\Skrivbord\Exempelfiler\BE02.px] |
|------|----------|-------------|--|
| jj F | ile Edit | Calculate | View Window Help |
| ê | * 💠 | 8 | ✓ Toolbar + - × ÷ □ □ □ ● ? |
| | A | В | ✓ Status Bar |
| 1 | Folkmär | ngd efter i | Options for Zero or Dot Rows |
| 2 | region o | och kön | ✓ Grid Lines |
| 3 | | 2008 | Column Identities |
| 4 | | 00 Riket | Show Table Title |
| 5 | | Män | Fonts |
| 6 | 0 år | 56528 | Alignment |
| 7 | 1 år | 56162 | Language 🕨 |
| 8 | 2 år | 55789 | Graph |
| 9 | 3 år | 53638 | Map |
| 10 | 4 år | 53870 | Standard |
| 11 | 5 år | 52819 | ✓ Advanced |
| 12 | 6 år | 51221 | 48980 |
| 13 | 7 år | 49360 | 46707 |
| 14 | 8 år | 49307 | 46412 |
| 15 | 9 år | 47970 | 45652 |

Picture 19

Where you select the tag "Format for data cells":

| Coptions for Advanced | | × |
|---|------------------------|---|
| Directories Information Table Presentation Format for data cells 1 | Close More Features | |
| Select a format for presentation of data Example ten thousand shown as | | |
| C 10000 | | |
| 10 000 | | |
| C 10.000 | | |
| 10,000 | | |
| | | |
| | | |
| | | |
| | | |

Figure 20.

Then mark the type of format for presentation of data you intend to use in the tables. The selected option will work from the next table opened in PC-Axis.

PC-Axis optionally can be linked to another software. Then it is possible to launge the other program from PC-Axis moving the present table into that very program. To make such a link use the menu View, Advanced. The installation program will automatically establish such a link to MS-Excel if it is available on the computer.

In the new window select folders named More Features and then click on

Additions. Now use the folder Other programs and the button ______. And you will find this window:

| Additions | | × |
|---|-----------------------------|-----------|
| Add a program by entering a menu text and with complete path. | ОК | |
| Remove a program by removing the menu to | ext. | Cancel |
| | | Browse |
| 1 Menu text: File type Excel xls2 Program: c:\Program\Office2k\Office\EXCEL | 2 Menu text: Program: | File type |
| 3 Menu text: File type Program: | 4 Menu text: Program: | File type |

Picture 21

In the dialog box there are options to create links to four other programs. To create such a link PC-Axis needs the following information:

- The name of the program is entered in the Menu text field. If a & sign is entered before a letter in the name this gives a key shortcut for that letter. The program name will appear as a line in the File menu in PC-Axis.
- The file type for the program is entered in the field File type.
- In the field Program the path and the name of the exe-file has to be entered using Browse support. If you cannot find the program search for it using the File explorer search function.

When you getting back to PC-Axis you will find a line in the File menu named Excel.

| PAX P | C-AXIS | - [c:\Docu | nents | and Se | etting | s\scbl | ewe\S | krivbord | \Exempel | filer\BE02.px] |
|--------|----------------------|----------------|----------|-----------|----------|---------|-----------|------------|-----------|----------------|
| ۲ ا | ile Edit | Calculate | View - V | Window | Help | | | | | |
| 🖬 | Open Da | atabase | | | | | | | Ctrl+O | 00 🖬 🕘 🤶 |
| | Import. | | | | | | | | Ctrl+I | |
| 1 | Foothot | e | | | | | | | | - |
| 2 | Close | | | | | | | | | |
| 3 | Save Save as | | | | | | | | Ctrl+S | |
| 4 | Dave as | | | | | | | | | - |
| 5 | Page lay | out | | | | | | | | |
| 5 | Print pre | eview | | | | | | | - Chulu D | |
| | Princ | | | | | | | | Ctri+P | - |
| 9 | Start re | cording to sa | ve quer | у | | | | | | |
| 10 | Stop red | cording of say | ved que | ry | | | | | | |
| 11- | Run sav | ea query | | | | | | | | - |
| 12 | Mainten | ance | | | | | | | | |
| 13 | Databas Classifia | se contents | | | | | | | | |
| 14- | Classific | acion | | | | | | | | - |
| 15 | Excel | | | | | | | | | |
| 16 | 1 c:\Doc | uments and | Settings | s\scblewe | e\Skrivt | oord\E× | empelfil | er\BE02.px | : | |
| 17 | 2 c:\Doo | cuments and | Settings | s\scblewe | e\Skrivt | oord∖E× | (empelfil | er\BE01.p× | : | |
| - 18 | 3 c:\Doo | uments and | Settings | s\scblewe | e\Skrivt | oord∖E× | empelfil | er\BE03.p× | : | |
| 19 | 4 c:\Viet | tnam_okt201 | 1\PC-A> | xis_mainr | module | Exercis | ses\CPIL | .G.px | | _ |
| 20 | E×it | | | | | | | | | |
| 21 | 15 ár | 62549 | 5983 | U | | | | | | _ |
| 22 | 16 år | 66175 | 6232 | 2 | | | | | | |
| 23 | 17 år | 67953 | 6360 | 8 | | | | | | |
| 24 | 18 år | 68411 | 6463 | 7 | | | | | | |
| 25 | 19 år | 64643 | 6128 | 0 | | | | | | |

Picture 22

When you click on the Excel line PC-Axis automatically will pass the table on into Excel. In Excel the table will be put in a new sheet and footnotes will appear below the table in Excel.

Table size

Another thing to be happy about concerning PC-Axis is the capacity to handle tables consisting of millions of table cells.

One more thing that makes you glad is that you do not have to watch all these table cells on the screen. The more table cells you show on the screen the longer it will take to make operations on the table. Furthermore it uses more RAM. So it is possible to reduce the number of table lines to be exposed on the screen. Click on View, Advanced and select a tag called Table Presentation.

| Coptions for Advanced | | × |
|---|--|---|
| Directories Information Table Presentation F | Close | |
| Show <u>G</u>rid lines Show <u>C</u>olumn Headers, A-Z Show <u>L</u>ine Numbers Show table title | Apply | |
| Bold Text ▼ <u>I</u> itle ■ <u>S</u> tub ■ <u>H</u> eading | Text Alignment Stub Heading Data Cells C Left Bight C Lenter | |
| Max size for table shown on screen | Max number of news 4000 | |

Picture 23

Here you can set the number of lines you as a maximum want the table to use on the screen. Remember that even if you cannot see the table on the screen you can work with the whole table. Everything you do will affect the whole table.

To change the table It is easy to change the table layout. If you do not want to have line numbers, grid frames just enter the View menu omit or insert the different properties.

| 4000 | | | | | | | | | | | | | - | | |
|--------|------------------------------------|----------------------|-----------------------------|--------------|------|-------|-------|--------|--------|--------|---------|------|---|-----|----------|
| PAX PI | C-AXIS - [* c:\cdro | m2002 | 2\D atabas | e\Sw | eder | \Popu | latio | n\Pop | ulatio | on sta | atistic | s\BE | 0 | _ [| Ι× |
| E, E | ile <u>E</u> dit <u>C</u> alculate | ⊻iew | <u>W</u> indow | <u>H</u> elp | | | | | | | | | | _ | 쾨츼 |
| 12 | * 💠 🖨 | ✓ To | olbar | | Σ | % % | 60 | + - | x | + | | | | 8 | |
| | A | ✓ <u>S</u> ta | atus Bar | | | | | | | | | | | | |
| 1 | Mean population | ✓ Ze | ro Rows | | | | | | | | | | | | |
| 2 | period and sex. | ✓ Z <u>e</u> | ro Columns | | | | | | | | | | | | |
| 3 | | ✓ <u>G</u> n | id Lines Jump Idoptit | iaa | | | | | | | | | | | |
| 4 | | v <u>c</u> u v Ba | namin ruenaa nai Numbers | les | h | | | | | | | | | | |
| 5 | 00 Sweden | • <u>n</u> e Sh | iow Table T | itle | | | | | | | | | | | |
| 6 | Total | <u> </u> | nts | | 363 | | | | | | | | | | |
| 7 | 01 Stockholm county | ∆li | gnment | | | | | | | | | | | | |
| 8 | Total | La | nguage | • | 998 | | | | | | | | | | |
| 9 | 0114 Upplands-Väst | Gr | aph | | | | | | | | | | | | |
| 10 | Total | <u> </u> | эр | | 912 | | | | | | | | | | |
| 11 | 0115 Vallentuna | Sta | andard | | | | | | | | | | | | |
| 12 | Total | ✓ A <u>d</u> | vanced | | 752 | | | | | | | | | | |
| 13 | 0117 Österåker | | | | _ | | | | | | | | | | |
| 14 | Total | | 17480 | 1 | 7291 | | | | | | | | | | _ |
| • | | | | | | | | | | | | | | | |
| Press | F1 for Help | | | | | | | R= 626 | | | | C= 2 | | | |

Picture 24

Within the program it is possible to copy, move or delete tables and subject matter areas. When you are doing it in PC-Axis you are sure that all references are deleted at the same time.

Click on File, Maintenance...

Copy, move or delete a table within a subject matter area. Select Copy/Move or Delete in the dialog box Maintenance. Select a subject area as "Population" and delete, copy or move the tables.

Classifications

Former mentioned classification will be elaborated and explained and you will see how useful the classifications can be.

The principle is that from a value set define a classification register that contains the desired summing. The classification register then can be used on all files where the very variable classified is used. One useful area is on the variable age where several different classifications can be established. Another is on region where municipalities can be put together in larger areas forming special divisions of the country.

It is not a must to make classification registers; it is possible use the sum function in PC-Axis. The advantage is the possibility to reuse the classifications.

To make a classification list takes some time, but you gain from it every time you use it in the future.

To create a classification based on an existing value set.

Open File, Classification ...

| RC-AXIS - [* c:\cdrom2002\ | Database\Sweden\ | Population\Population stati | istics\BE0 💶 🗖 🗙 |
|---|---------------------|-----------------------------|------------------|
| 📜 <u>File</u> Edit <u>C</u> alculate View V | ⊻indow <u>H</u> elp | | _ B × |
| <u>o</u> pen Database Ctrl+0 | Σ 🛱 🖬 | % ‰ + − × ÷ | 💷 🖬 🔵 🌹 📃 |
| Import Utri+i | C | | <u> </u> |
| 2 <u>Close</u> | | | |
| 3 <u>S</u> ave Ctrl+S | | | |
| 4 Save <u>a</u> s | Women | | |
| 5 Page layout | | | |
| 6 P <u>r</u> int preview | 0600 4495363 | | |
| 7 <u>P</u> rint Ctrl+P | | | |
| 8 <u>M</u> aintenance | 6050 934998 | | |
| 9 Database contents | | | |
| 10 <u>C</u> lassification | 8640 18912 | | |
| Excel | 0005 10750 | | |
| 14 Evit | | | |
| 14 Total | 17480 17291 | | |
| 1 1000i | 11201 | | |
| Press F1 for Help | | R= 626 | C= 2 |

Picture 25

Select among the value sets available in the listbox. For example ALDER1, or use Browse if you want to change to another classification catalogue.

| Classification | 1\$ | × |
|--|---|--------|
| | Welcome to the Classification | Guide |
| Selec ALD Läns Läns Regi Begi | t a Valueset or Enter a New Name | Biowse |
| Curre Direc | nt c:\cdrom2002\Classifications\Sweden ;ory: | |
| Bac | k <u>C</u> ontinue | End |

Picture 26

Press Continue ..

| Classifica | ations | | |
|------------|--------------|------------------|----------------------|
| Valueset | | Type V 💌 | |
| | Code | Text | Save |
| 2 | | | C |
| 3 | | | bave as |
| 4 | | | <u>D</u> elete |
| 6 | | | |
| 7 | | | Aggregations |
| 8 | | | Bead from File |
| 10 | | | |
| • | | | Find <u>D</u> omains |
| Total: | 0 | | <u>P</u> rint |
| Domain | | × | |
| | <u>B</u> ack | <u>C</u> ontinue | End |

Picture 27

To avoid manual data entry you can use the option Read from file... and you will find a window with already existing value sets.

| ≻ Read from | file | × |
|--|---------------------------------------|----------|
| File Name: | c:\cdrom2002\Classifications\Sweden\A | Browse |
| - File type: | | Open |
| Delimited VS file | i file Comma (.) | Cancel |
| C PC-Axis | File | Add file |
| | | |

Picture 28

Now the page will be filled with values from the selected value set (text and codes) for example ALDER1, the name of the domain and the type of value set (V=Value set of normal structure, H= Hierarchical value set, N=sub areas). Press on the button named Aggregations.



Picture 29

1. In the upper field the name of the aggregation list is entered, for example 10yearclasses. This name will be used in the table heading when this aggregation list is used.

2. In the next field every single group is named (Code and text), for example 0-9 in both fields in this case. Before every new group you press the button Add.

3. In the bottom field you select the values that shall be included into the group for example 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. They will be found in the right hand side list and then transferred to the left using the arrow key on the screen.

If it is not ticked on "Allow values in a group to overlap" the values will disappear from the right hand box when clicked to the left. This is the most common way of using classification.

If you make groups that contains for example 0-4 years and also one 0-9 years it is necessary to tick the "Allow values in a group to overlap" button. This because 0-4 is a subset of 0-9.

Use the Show button to check the result. Then save.

To create a classification based on a new value set.

To be able to create aggregations based on values not available in a classification register, you first have to import those values. The value set is a file containing codes and texts for the values to be aggregated from. For example "0" with the corresponding text "0 year". The code "1" with the corresponding text "1 year" and so on. Value sets can be read into PC-Axis from a comma separated file that could look like this:

0,0 year

1,1 year

2,2 year

It is also possible to import an existing value set (a file with the extension VS) to optionally correct it. At most cases it is a PC-Axis file one want to make aggregations for and then the PC-Axis file can be used as input to get the value set. To be able to use the aggregations one shall secure the consistency between the PC-Axis files and the aggregations lists.

Domain is a keyword that can occur for any variable. It refers to a class of values. A list with all names of existing domains can be seen from the Classification program if the right current database is linked. The name can also be found with the Domain keyword in the PX-file. This name is to be used when establishing a new value set.

When using the aggregation lists you shall secure the right classification catalogue is linked to PC-Axis.

What is wrong?

If you after having created a classification register do not access to it when opening a table the reasons can be the following:

- The Current Classification catalogue does not contain the created classification register. Shift classification catalogue. Do it at the same places as where you shift database. It is also possible to set a default catalogue in "View, Advanced..". Select "Classification Directory" and set the desired catalogue.
- DOMAIN is not corresponding between the PX-file and the value set. Open the PX-file in Notepad and check if the name corresponds to the value set.



Picture30

Saved Queries in PC-Axis Main Module

PC-Axis has an option to record a sequence of work and run as a batch. You can record calculations, pivot and convert but not change text in the Edit menu. It is also possible to decide how the time variable is to be treated: Select for instance to always use the last time period(s), or to start with the same time period but add new time periods as they are available.

To use this option you start by selecting recording under the file menu



You will be prompted for a file name for the bat file that will be created for your selections.

| 💐 Start rec | ording, name batch fi | ile | <u>_0×</u> |
|--------------|-----------------------|-----------|------------|
| Save in: o | t:\databas\batfiler | | |
| 🖃 d: | | | |
| d:\ | s | test1.bat | |
| atfiler 🗮 | | | |
| | | | |
| | | 1 | |
| | lat a | | OK |
| File name | *.bat | | Cancel |
| File Format: | Batch (*.bat) | • | New folder |
| | NC | AC. 10 | |

Next you select the PX file under 'Open database' and the variables and values you want to have.

| d:\databas\teste | r\BEO1 | 01F1xx.px | | | |
|---|-----------|--|--------------|---|------------|
| BE0101F1: Migration | | | | | ок |
| | | | | | Cancel |
| Units: number | | 6 | | | All |
| Total no of cells: 864 | 1 | | | | |
| | | | | | Aggregate |
| /ariable: region. Elimi | ination n | ot allowed | | | Zoom |
| region | 4 | age | 4 sex | 2 | Long texts |
| 0115 Vallentuna 0117 Österåker 0120 Värmdö 0123 Järfälla | | 0 1 2 3 | men women | | |
| period | 3 | lype | 9 9 | | |
| 2000 2001 2002 | | Inmigrated Outmigrated Immigrants Excess of migration Excess of Immigration Internal inmigrated | | | |

The table will be shown as usual

| P(| -AXIS - [d:\data | abas\tester | BE0101F1x | к.ря] | | | |
|-----|-------------------|--------------|---------------|------------|--------------|---------------------|--------------------|
| 芦 F | ile Edit Calculat | e View W | indow Help | _ | | | |
| Ê | * 💠 日 🗧 | s 🖸 🖬 | 다 다 다 | Σ % % | ‰ + - | · × ÷ 🔟 🖬 | 🔵 🍞 REE |
| | A | В | С | D | E | F | G |
| 1 | Migration by re | gion, age, s | sex, period a | nd type | | | |
| 2 | | 2000 | | | | | |
| 3 | - | Inmigrated | Outmigrated | Immigrants | Emigrants | Excess of migration | Excess of Immigrat |
| 4 | 0115 Vallentuna | | | | | | |
| 5 | 0 | | | | | | |
| 6 | Men | 12 | 3 | 2 | 0 | 9 | |
| 7 | Women | 17 | 3 | 1 | 0 | 14 | |
| 8 | 1 | | | | | | |
| 9 | Men | 26 | 9 | 2 | া | 17 | |
| 10 | Women | 26 | 9 | 5 | 3 | 17 | |
| 11 | 2 | 1 | | | | | |
| 12 | Men | 15 | 13 | 0 | 0 | 2 | |
| 13 | Women | 21 | 11 | 2 | 4 | 10 | |
| 14 | 3 | | | | | | |
| 15 | Men | 20 | 4 | 1 | 1 | 16 | |
| 16 | Women | 18 | 8 | 0 | 0 | 10 | |
| | | - | | | - | | |

Continue choosing whatever editing and calculations you wish to do, for instance pivot

| PAX PI | -AXIS - [d:\databas\tester | \BEO10 | 1F1жж.ря | 4] | | | | | | | |
|--------|---|----------|------------|------|------------|------|-------|-----|---|---|-----|
| 🎁 F | ile Ed <mark>it</mark> Calculate View W | 'indow | Help | | | | | | | | |
| i 🖨 | * 💠 日 🖨 🗅 🖻 | ₩ | Ξ Σ | E % | ‰ + | - > | • ÷ 🛛 |] 🖬 | • | 8 | REC |
| | А | В | С | D | E | F | G | | | | |
| 1 | Migration by region, age, | type, p | eriod and | sex | | | | | | | |
| 2 | | 2000 | | 2001 | | 2002 | | | | | |
| 3 | | Men | Women | Men | Women | Men | Women | | | | |
| 4 | 0115 Vallentuna | | | | | | | | | | |
| 5 | 0 | | | | | | | | | | |
| 6 | Inmigrated | 12 | 17 | 10 | 9 | 13 | 14 | | | | |
| 7 | Outmigrated | 3 | 3 | 2 | 8 | 14 | 4 | | | | |
| 8 | Immigrants | 2 | 1 | 0 | 1 | 1 | 5 | | | | |
| 9 | Emigrants | 0 | 0 | 0 | 2 | া | 0 | | | | |
| 10 | Excess of migration | 9 | 14 | 8 | 1 | -1 | 10 | | | | |
| 11 | Excess of Immigration | 2 | 1 | 0 | -1 | 0 | 5 | | | | |
| 12 | Internal inmigrated | 10 | 16 | 10 | 8 | 12 | 9 | | | | |
| 13 | Internal outmigrated | 3 | 3 | 2 | 6 | 13 | 4 | | | | |
| 14 | Internal excess of migration | 7 | 13 | 8 | 2 | -1 | 5 | | | | |
| 15 | 1 | | 1 | | | | | | | | |
| 16 | Inmigrated | 26 | 26 | 22 | 28 | 25 | 30 | | | | |
| 17 | Outmigrated | 9 | 9 | 14 | 10 | 7 | 12 | | | | |

You can also select 'Save as'

| File Name: BE0101F1xx.xls | Directories: d:\databas | | |
|--------------------------------|----------------------------|----------|------------|
| AKU.xks | . (a) d:\ | • | ок |
| AKU1992.xls AKU1993.xls | batfiler | | Cancel |
| BE0101A1.xls BE0101A5.xls | | | New folder |
| BE0101F3 xls BE0101F3ny xls | | I | |
| File Format: | 1 | | |
| Excel 2.1 (*.xls) | | | |

When you are ready stop the recording

| PAX PO | -AXIS - [d:\databas\tester\BE010 |)1F1xx.px |] | | | | | | |
|--------|----------------------------------|-----------|-----|-------|------|---------|-----|---|-----|
| D F | ile Edit Calculate View Window | Help | - | | | | | | |
| ú | Open Database | Ctrl+O | % | % + | - > | (÷ [| 0 🖬 | 8 | REC |
| | Import | Ctrl+I | D | E | F | G | | | |
| 1_ | Foothote | | ex. | | | | | | |
| 2 | Start recording to save query | | 101 | | 2002 | | | | |
| 3 | Stop recording of saved query | | en | Women | Men | Women | | | |
| 4 | Run saved query | | | | | | | | |
| 5 | Close | | | | | | | | |
| 6 | Save | Ctrl+S | 10 | 9 | 13 | 14 | | | |
| 7 | Save as | | 2 | 8 | 14 | 4 | | | |
| 8 | Page layout | | 0 | 1 | 1 | 5 | | | |
| 9 | Print preview | | 0 | 2 | 1 | 0 | | | |
| 1(| Print | Ctrl+P | 8 | 1 | -1 | 10 | | | |
| 1. | Maintenance | | 0 | -1 | 0 | 5 | | | |
| 1: | Database contents | | 10 | 8 | 12 | 9 | | | |
| 1: | Classification | | 2 | 6 | 13 | 4 | | | |
| 1. | Excel | | 8 | 2 | -1 | 5 | | | |
| 15 | Internet Explorer | | | | | | | | |

You will see all the steps you have selected since you started recording.

| пска ра | det steg d | u vill editera | | | |
|---------------------------------|---------------------------------------|--|---|--|---|
| Steg step1 step2 step3 | Funktion selval pivotm excel | Sparad fråga c:\Databas\Tabeller\UrvalBE. c:\Databas\Tabeller\Pivot.pxq c:\Databas\Tabeller\KonvEx. | Infil c:\Databas\Tabeller\BE010 c:\DATABAS\TABELLER\\ c:\DATABAS\TABELLER\\E | Utfil 1 c:\DA 4 c:\DA 8 c:\DA | TABAS\TABELLER\ TABAS\TABELLER\ TABAS\TABELLER\ |
| 1 | | | | | > |
| Sparad | fråga: | | | | Uppdatera Spara |

If you want the recorded actions in a catalogue of its own you just click the down left ticking box. The names that can be seen in the window of steps above will not be changed and does not need to be changed in this case. If you on the contrary would like to save more than one recording in the same catalogue you has to rename some of the fields in each step. Click on the first line as can be seen below and the different items opens for editing below the window. The phrasing tmp must be changed for instance. If you rename the output file in step 1 the input file in step2 automatically changes. When a step is edited push update and the line in the window will be changed accordingly.

Repeat the selection and update for each line in the list. When you have done so the button "Save" will be available.

| Step Function | Saved query | Input file | Output file | |
|---|---|--|---|------------------|
| step1 selval step2 pivotm step3 excel | d \databas\batfiler\Step1tmp. d \databas\batfiler\Step2tmp. d \databas\batfiler\Step3tmp. | d.\databas\tester\BE0101F1 C:\WINNT\\$TMP1.PX C:\WINNT\\$TMP3.PX | 1C:\WINNT\\$TMP1.Px C:\WINNT\\$TMP3.PX d:\databas\BE0101F1; | ((xx.xls |
| | | | | |
| ۹ | | | Uodate | |
| Saved query file: | d:\databas\batfiler\Step1 | tmp.pxq | <u>U</u> pdate | |
| Saved query file: | d:\databas\batfiler\Step1 | tmp.pxq | <u>U</u> pdate | |
| Saved query file: Input File: | d:\databas\batfiler\Step1 d:\databas\tester\BE010 | tmp.pxq 1F1xx.px | <u>U</u> pdate <u>S</u> ave S <u>t</u> op, no sav | ► |

You get a confirmation what has been created and you can run the job as often as you need by selecting run in PC-Axis or by double clicking on the

bat file in Windows Explorer.



List on actions that can be recorded in the Main Module of PC-Axis (PXQ)

Aggregations Calculations within a table Conversion into dBase, Excel, Gesmes, HTML, Lotus, text matrix, PX-ML, PRN, PX-file Pivot, clockwise, anti clockwise and manual pivot Change value order

The following actions are not allowed when recording in the Main Module of PC-Axis.

If you try to use the following actions the recorded query will wrong. **The following could not be done**: Change texts/codes... Change texts... Link with table and Overlay with table Calculations between tables Converting to a relational table

PXQ XML files

When a recording is done in PC-Axis the user can decide whether to use the old ini file format or the new XML format.

The steps are recorded in separat temp XML files and when the user ends the recording and gives the file a name the parts are put together in one file which can look like this

| xml</th <th>version="1.</th> <th>0" enco</th> <th>oding="iso-8859-1"</th> <th>?></th> | version="1. | 0" enco | oding="iso-8859-1" | ?> |
|--|-------------|---------------|----------------------|----------|
| queries | | | version | n="1.0"> |
| <languag< td=""><td>ge>en</td></languag<> <td>ge></td> <td></td> <td></td> | ge>en | ge> | | |
| pxlangs | suffix> | | <td>gsuffix></td> | gsuffix> |
| <texts></texts> | | | | |
| <text< td=""><td></td><td></td><td>id="and">an</td><td>d</td></text<> | | | id="and">an | d |
| <text< td=""><td></td><td></td><td>id="by">b</td><td>y</td></text<> | | | id="by">b | y |
| <text< td=""><td></td><td></td><td>id="dist">Distribute</td><td>d</td></text<> | | | id="dist">Distribute | d |
| <text< td=""><td>i</td><td>d="unit">unit</td><td>variab</td><td>le</td></text<> | i | d="unit">unit | variab | le |
| | | | | |

| <datapres></datapres> | | |
|--|--------------------------------------|----------------------|
| <rounding>0<td>ng></td><td></td></rounding> | ng> | |
| <secrecy>0</secrecy> | > | |
| <symbol1>.<td>1></td><td></td></symbol1> | 1> | |
| <symbol2><td>12></td><td></td></symbol2> | 12> | |
| <symbol3><td>ol3></td><td></td></symbol3> | ol3> | |
| <symbol4></symbol4> | ol4> | |
| <symbol5><td>ool5></td><td></td></symbol5> | ool5> | |
| <symbol6></symbol6> | bol6> | |
| <symbol7><td>nbol7></td><td></td></symbol7> | nbol7> | |
| <symbolnil>-<td>olnil></td><td></td></symbolnil> | olnil> | |
| | | |
| <pxquery< p=""></pxquery<> | | step="1"> |
| <pre><function>aggregatio</function></pre> | n | _ |
| <files></files> | | |
| <infile>c:\database</infile> | Befolkning\BE0 | 101A1oneyear.px |
| <outfile>C:\pxtemp</outfile> | p\\$tmp6.px <td>ile></td> | ile> |
| <errorfile>C:\pxter</errorfile> | np\\$tmp6.err <td>rorfile></td> | rorfile> |
| | | |
| <keepdescription>1<</keepdescription> | /keepdescription> | • |
| <classcat>C:\aggreg\</classcat> | Aggreg2006 <td>sscat></td> | sscat> |
| <variables></variables> | | |
| <noofvar>5<td>var></td><td></td></noofvar> | var> | |
| <variable< td=""><td>order="1"</td><td>name="region"></td></variable<> | order="1" | name="region"> |
| <valuespecificat< td=""><td>ion>text<td>pecification></td></td></valuespecificat<> | ion>text <td>pecification></td> | pecification> |
| <values></values> | | |
| <value< td=""><td></td><td>order="1">*</td></value<> | | order="1">* |
| | | |
| | | |
| <variable ord<="" td=""><td>ler="2" nan</td><td>ne="marital status"></td></variable> | ler="2" nan | ne="marital status"> |
| <valuespecificat< td=""><td>ion>code<td>specification></td></td></valuespecificat<> | ion>code <td>specification></td> | specification> |
| <values></values> | | |
| <value< td=""><td></td><td>order="1">unm</td></value<> | | order="1">unm |
| <value< td=""><td></td><td>order="2">mar</td></value<> | | order="2">mar |
| <value< td=""><td></td><td>order="3">div</td></value<> | | order="3">div |
| <value< td=""><td></td><td>order="4">wid</td></value<> | | order="4">wid |
| | | |
| | | |
| <variable< td=""><td>order="3"</td><td>name="age"></td></variable<> | order="3" | name="age"> |
| <valuespecificat< td=""><td>ion>order<td>specification></td></td></valuespecificat<> | ion>order <td>specification></td> | specification> |
| <aggreg>C:\aggr</aggreg> | reg\Aggreg2006\1 | 10-years.agg |
| <values></values> | | |
| <value< td=""><td></td><td>order="1">1</td></value<> | | order="1">1 |
| <value< td=""><td></td><td>order="2">2</td></value<> | | order="2">2 |
| <value< td=""><td></td><td>order="3">3</td></value<> | | order="3">3 |
| <value< td=""><td></td><td>order="4">4</td></value<> | | order="4">4 |
| | | |
| | | |
| <variable< td=""><td>order="4"</td><td>name="time"></td></variable<> | order="4" | name="time"> |
| <valuespecificat< td=""><td>ion>text<td>pecification></td></td></valuespecificat<> | ion>text <td>pecification></td> | pecification> |
| <values></values> | | |
| <value< td=""><td></td><td>order="1">2005</td></value<> | | order="1">2005 |
| <value< td=""><td></td><td>order="2">2006</td></value<> | | order="2">2006 |
| | | |
| | | |
| <variable< td=""><td>order="5"</td><td>name="sex"></td></variable<> | order="5" | name="sex"> |

| <valuespecification>code<td>especification></td></valuespecification> | especification> |
|--|-----------------|
| <values></values> | _ |
| <value< td=""><td>order="1">1</td></value<> | order="1">1 |
| <value< td=""><td>order="2">2</td></value<> | order="2">2 |
| | |
| | |
| | |
| | |
| <pxquery< p=""></pxquery<> | step="2"> |
| <function>pivotmanual</function> | |
| <files></files> | |
| <infile>C:\pxtemp\\$tmp6.px<td>e></td></infile> | e> |
| <outfile>C:\pxtemp\\$TMP7.PX<td>outfile></td></outfile> | outfile> |
| <pre><errorfile>C:\pxtemp\\$TMP7.err</errorfile></pre> | /errorfile> |
| | |
| <query></query> | |
| <stuborder>1,2</stuborder> | |
| <headorder>4,5,3</headorder> | |
| | |
| <variables></variables> | |
| <noofvar>5</noofvar> | |
| <variable fr<="" order="1" td=""><td>rom="1">region</td></variable> | rom="1">region |
| <variable from="2" order="2"></variable> | >marital status |
| <variable <="" order="3" td=""><td>from="4">time</td></variable> | from="4">time |
| <variable <="" order="4" td=""><td>from="5">sex</td></variable> | from="5">sex |
| <variable from<="" order="5" td=""><td>m="3">10-years</td></variable> | m="3">10-years |
| | |
| | |
| | |

The tag <valuespecification> is created as 'code' if the keywords Values and Codes exist in the PC-Axis file and as 'text' if only Values exists.

The values for a variable which uses an aggregation file are always referred to by their order in the aggregation list. If a Valuespecification tag is used it must have the value "order" for that variable, but the tag is not needed.

```
In the above example for variable Region the value is stated as <value order="1">*</value>
```

This means that all existing values for this variable are to be used in the px file. This expressions is not created in PC-Axis, but if the pxq xml file is edited elsewhere it is possible to define that all values should be included. This means that if the px file is updated with a new region the saved query need not be changed to include the new value.

If the selection is followed by further steps make sure that the editing or calculations in these steps can still be done after a change of values in the original PX-file.

The functions supported are

| Function | Description |
|-------------|--|
| selection | Select variables and values |
| aggregation | Select aggregations and variables and values |

| pivotmanual | Change variable order, manual | |
|-----------------|--|--|
| pivotauto | Change variable order, auto | |
| valueorder | Change value order | |
| vardelete | Delete a variable | |
| chgtextcontents | Change text for contents | |
| textcode | Change between text and code presentation | |
| decimals | Change number of decimals (whole table only) | |
| splitquarters | Split time variable when quarters | |
| splitmonths | Split time variable when months | |
| calculation | Operations: | |
| | remove remove values | |
| | sum sum values for a variable | |
| | percent per cent | |
| | permille per 1000 | |
| | add add 2 values | |
| | subtract subtract one value from another | |
| | multiply multiply 2 values | |
| | divide divide one value with another | |
| filecalculation | Calculations involving 2 files (tables) | |
| excel | Save as Excel | |
| asp | Save as asp | |
| XMLC1 | Save as PXML xdf | |
| XMLC2 | Save as PXML keys | |
| XMLC3 | Save as PXML cals | |
| text | Save as text file | |
| dbase1 | Save as dBase 1 | |
| dbase2 | Save as dBase 2 | |
| dbase3 | Save as dBase 3 | |
| dbase4 | Save as dBase 4 | |
| graph | Save as graph file | |
| matrix | Save as matrix file | |
| lotus | Save as Lotus wk1 file | |
| html1 | Save as html 1 (no table tag) | |
| html2 | Save as html 2 (with table tag) | |
| prnmatrix | Save as delimited matrix | |
| prntable | Save as delimited table | |
| reltable | Save as relational table | |
| pxfile | Save as px file | |

Updated: 2008-01-17

History

PC-Axis was developed for the 1990 Population Census in Sweden. The software has been further developed in the framework of the International PC-Axis Reference Group.

For instance a Windows version 1995, an Internet version of PC-Axis named PX-Web is available and in use since 2000. In Statistics Denmark and Statistics Finland software to create PC-Axis files, named PX-Make and PX-Edit respectively, has been developed. Statistics Norway has made a map-software named PX-Map.

PC-Axis for dissemination of Statistics from other organisations

The PC-Axis family products are used for dissemination of statistics from statistical agencies in a lot of organizations and countries. For a complete list of PC-Axis family members look at the PC-Axis web site: http://www.scb.se/Pages/List____313990.aspx

Overview of the PC-Axis family software



The **PC-Axis** family software is leaning on the thesis Professor Bo of Sundgren on Output databases using many dimensional matrices, also called cubicles or boxes. These thoughts are implemented into the data model used in the Sweden's Statistical Databases and also in use in the databanks of Denmark and Norway. In the figure to the left are the programs that touches the ellipse related to the SQLdatabase, while those not touching the ellipse is only using the PC-Axis file format.

PC-Axis files can be produced by PC-Axis SQL, PX-Batch, PX-Make, PX-Edit (From Finland) and SuperCross. PX-Publ can

produce tables direct into a MS-Word- or MS-Excel documents. Makrometa and Metalist are used for the maintenance of the metadata. Metadok is software for entering metadata on registers for micro data.

Contact persons

lena.gustafsson@scb.se and raitis.sedlenieks@scb.se Tel: +46 8 5069 4000