

2005-08-04

Changes in PC-Axis file format for NPM

The changes apply to more "symbols", with or without calculation possibility and information to single data cells, which contain figures.

1. More symbols

As from PC-Axis version 2004 for CD it is possible to have 6 different symbols for figures, which are not to be shown.

1.1 Unknown or protected figures

Values which are to be shown as a symbol instead of a figure.

To be stored in the data part as 1 to 6 dots within quotation marks.

In the text file for every language it is possible to state that they are to be shown in another way. The default is:

```
datasymbol1=.  
datasymbol2=..  
datasymbol3=...  
datasymbol4=....  
datasymbol5=.....  
datasymbol6=.....
```

For each of these any calculations will give the result "unknown".

1.2 Presentation

In order to show these stored symbols in different ways without having to change language it is suggested to add new keywords in the PC-Axis file:

Example:

```
DATASYMBOL1="n.a.";  
DATASYMBOL2="..";  
DATASYMBOL3=":";  
DATASYMBOL4="....";  
DATASYMBOL5=".....";  
DATASYMBOL6=".....";
```

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This means that if the keyword DATASYMBOLn is missing the symbol from the text file will be used, but if the keyword exists whatever is in the px-file will be used instead.

These data cells cannot be summed and shall therefore be shown with a symbol if several types of symbols are included in the sum.

DATASYMBOLSUM="..";

Example: "." + ".." + "... " = ".."

If only one symbol is included the sum is shown with that symbol

Example: "... " + "... " + "... " = "... "

When saving a file where a sum has been made, the "unknown" sum is saved as "....." (7 dots) in the file, in order to make it possible to show it again with the symbol that means sum. Note that all kinds of calculations (+-*/) are presented with the sum symbol.

Exempel: "." - ".." = ".."

On the following pages are some example of the situation today and the result after introduction of the new keywords.

The data in the example table is used as an illustration and is not real.

Example of unknown or protected values in PC-Axis 2004:

Population by region, marital status, time, age and sex

		2001				2002			
		0		1		0		1	
		m	f	m	r	m	f	m	f
0115	unmarried	139	166	168	169	183	167	157	184
0115	married	.	.	..	0	0	0	0	0
0115	widow	..	...	....	0	0	0	0	0
0115	divorced	....	.....	.....	0	0	0	0	0
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	.	0	0	0	0	0	0	0
0117	widow	0	..	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0120	unmarried	243	193	245	221	265	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0

Stored data in the PX file:

```

DATA=
139 166 168 169 183 167 157 184
"." "." ".." 0 0 0 0 0
".." "... " "...." 0 0 0 0 0
"...." "....." "....." 0 0 0 0 0
211 208 224 220 265 222 227 227
"." 0 0 0 0 0 0 0
0 ".." 0 0 0 0 0 0
0 0 0 0 0 0 0 0
243 193 245 221 265 255 259 207
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0;
    
```

Sum marital status:

		2001				2002			
		0		1		0		1	
		m	f	m	f	m	f	m	f
0115	unmarried	139	166	168	169	183	167	157	184
0115	married	.	.	..	0	0	0	0	0
0115	widow	..	...	....	0	0	0	0	0
0115	divorced	....	.....	.....	0	0	0	0	0
0115	SUM	.	.	.	169	183	167	157	184
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	.	0	0	0	0	0	0	0
0117	widow	0	..	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0117	SUM	.	..	224	220	265	222	227	227
0120	unmarried	243	193	245	221	265	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0
0120	SUM	243	193	245	221	265	255	259	207

With the addition of new keywords in the future:

DATASYMBOL1="a";
 DATASYMBOL2="b";
 DATASYMBOL3="c";
 DATASYMBOL4="d";
 DATASYMBOL5="e";
 DATASYMBOL6="f";
 DATASYMBOLSUM="S";

Result:

		2001				2002			
		0		1		0		1	
		m	f	m	f	m	f	m	f
0115	unmarried	139	166	168	169	183	167	157	184
0115	married	a	a	b	0	0	0	0	0
0115	widow	b	c	d	0	0	0	0	0
0115	divorced	c	e	f	0	0	0	0	0
0115	SUM	S	S	S	169	183	167	157	184
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	a	0	0	0	0	0	0	0
0117	widow	0	b	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0117	SUM	a	b	224	220	265	222	227	227
0120	unmarried	243	193	245	221	265	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0
0120	SUM	243	193	245	221	265	255	259	207

2. Zero values

It should be possible to show a stored zero (which might represent a decimal value) in another way than an absolute zero which is stored as "-"

Stored 0 is to be shown as 0. No keyword
 Stored "-" is to be shown as -. DATASYMBOLNIL="-";

The symbol "-" can be used in a sum and will be replaced by 0 in the sum.

In order to be able to separate the cells which started out as 0 resp "-" it is necessary to read them as different values when calculations are to be made. Therefore a value close to 0 will be used, which is small enough not to matter in the end result.

For instance 0.000000000000000000000001

In both "-" and 0 must be calculated as 0 it is not possible to save them back as "-".

Example:

		2001				2002			
		0		1		0		1	
		m	f	m	f	m	f	m	f
0115	unmarried	139	166	168	169	183	167	157	184
0115	married	-	-	-	0	0	0	0	0
0115	widow	-	-	-	0	0	0	0	0
0115	divorced	-	-	-	0	0	0	0	0
0115	SUM	139	166	168	169	183	167	157	184
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	-	0	0	0	0	0	0	0
0117	widow	0	-	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0117	SUM	211	208	224	220	265	222	227	227
0120	unmarried	243	193	245	221	265	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0
0120	SUM	243	193	245	221	265	255	259	207

3. Data cells with explanation

This concerns cells, which have extra information, for instance a symbol for "preliminary" or "revised".

Here is suggested to have a new keyword DATANOTECELL which is written the same way as Cellnote

```
DATANOTECELL("0115","unmarried","2001","0","m")="a";
DATANOTECELL("0115","unmarried","2002","0","m")="*";
DATANOTECELL("0120","unmarried","2002","0","m")="*";
```

If the table contains several different symbol types and they are included in the same sum a symbol decided by a new keyword is used:

```
DATANOTESUM="**";
```

Example:

Population by region, marital status, time, age and sex

		2001				2002			
		0		1		0		1	
		m	f	m	f	m	f	m	f
0115	unmarried	139a	166	168	169	183*	167	157	184
0115	married	.	.	..	0	0	0	0	0
0115	widow	..	...	....	0	0	0	0	0
0115	divorced	....	.....	.....	0	0	0	0	0
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	0	0	0	0	0	0	0	0
0117	widow	0	..	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0120	unmarried	243	193	245	221	265*	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0

a indicates that the figures are revised

* indicates that the figures are preliminary

Note that the text for what a and * means must be in the table footnote in order to be shown. Otherwise a new keyword is needed for the text.

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Sum marital status:

		2001				2002			
		0		1		0		1	
		m	f	m	f	m	f	m	f
0115	unmarried	139a	166	168	169	183	167	157	184
0115	married	-	-	-	0a	0	0	0	0
0115	widow	-	-	-	0*	0	0	0	0
0115	divorced	-	-	-	0	0	0	0	0
0115	SUM	139a	166	168	169**	183	167	157	184
0117	unmarried	211	208	224	220	265	222	227	227
0117	married	-	0	0	0	0	0	0	0
0117	widow	0	-	0	0	0	0	0	0
0117	divorced	0	0	0	0	0	0	0	0
0117	SUM	211	208	224	220	265	222	227	227
0120	unmarried	243	193	245	221	265*	255	259	207
0120	married	0	0	0	0	0	0	0	0
0120	widow	0	0	0	0	0	0	0	0
0120	divorced	0	0	0	0	0	0	0	0
0120	SUM	243	193	245	221	265*	255	259	207

a indicates that the figures are revised

* indicates that the figures are preliminary

** indicates that in the sum is included preliminary and revised figures

Note that the text for what a, * and ** means must be in the table footnote in order to be shown. Otherwise a new keyword is needed for the text.