

TWINNING CONTRACT

JO/13/ENP/ST/23

Strengthening the capabilities of the Department of Statistics in Jordan



MISSION REPORT

on

Activity 4.7

Mission carried out by

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Version: Final



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List of Abbreviations

CSS	Cascading Style Sheet
DoS	Department of Statistics of Jordan
ToR	Terms of Reference
CNMM	Common Nordic Metadata Model
CMS	Content Management System
NSI	National Statistical Institute

Executive summary

This activity was designed to assist DOS in solving outstanding issues related to the CNMM (common Nordic Metadata Model), PX-Edit and PX-Web.

The implementation of these tools will allow DOS to publish an aggregated dissemination output database on the Internet. The output database will allow users to download and manipulate statistical information directly in Excel or in dedicated software's for statistical analysis. Thereby bringing the services offered by DOS to its users to a comparable level.

For us it is / was not clear if DOS is committed to bringing the proposed software into use / production. The Twinning project can and will pay the initial licence fees for the software if DOS intends to go forward and launch a version to the public before the end of the twinning project.

Management and IT should focus strongly on accepting the strengths and weaknesses of standard software (PX-family) that is used widely by statistical offices over the world. Adding requirements real or potential that may or may not come up will not be fulfilled by looking for other software alternatives or starting an in house development project from scratch.

We recognize that the system and the necessary steps / work load to take it into production does not fulfil the expectations of a "hands off" ready to use system expected by DOS staff members. To the best of our knowledge such a system IS NOT available from anywhere. In our best professional judgement all comparable systems have much higher license costs and require more work in terms of preparing data for publishing.

Some challenges still remain regarding customization and the handling of the right to left in the Arabic language version of the user interface of the PX-web.

1. General comments

This mission report was prepared within the Twinning Project "Strengthening the capabilities of the Department of Statistics in Jordan". It was the seventh mission to be devoted to Assessment of current database structure within Component 4: Data warehouse of the project. The mission was a logical follow up to the work done by Knudsen & Tininini (activity 4.2 and 4.3) and Ellemose Jensen & Wulff (Activity 4.6 – September 2014)

Purpose of the activity

- To work on remaining challenges regarding data prepared for the Common Nordic Data Model
- To work on remaining challenges regarding data prepared for the PX-Edit
- To work on remaining challenges regarding the customization of the PX-web
- To identify training needs regarding the dissemination tools

The consultants would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Jordan and which facilitated the work of the consultant.

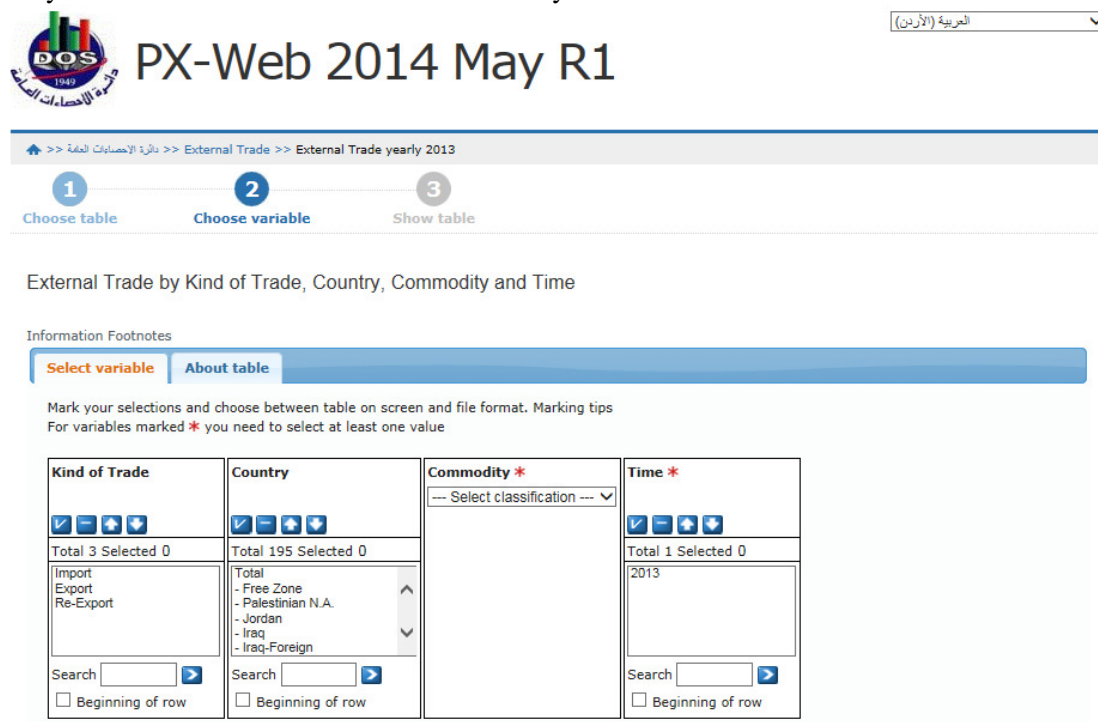
This views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, DOS or Statistics Denmark. The consultants and Statistics Denmark however have a long, significant and successful experience with implementing the involved tools in a EU twinning context. All comments and advice is therefore base on best practices and to the best of our opinions all advice should be applicable to the DOS / Jordanian context.

2. Assessment and results

DOS work since end of September 2014

Since the activity in September by Ellemose Jensen & Wulff (Activity 4.6) DOS has continued the work initiated by Knudsen in (Activity 4.2 and 4.3) and created a number of tables in the installed version of the CNMM. Also tables had been added using PX-Edit. DOS has also installed the latest version of PX-Web 2014R2December.

Only the 2014R1 version seems to be externally accessible at the moment



PX-Web 2014 May R1

External Trade by Kind of Trade, Country, Commodity and Time

Information Footnotes

Select variable About table

Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

Kind of Trade	Country	Commodity *	Time *
<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="text" value="--- Select classification ---"/>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Total 3 Selected 0	Total 195 Selected 0		Total 1 Selected 0
<input type="text" value="Import"/> <input type="text" value="Export"/> <input type="text" value="Re-Export"/>	<input type="text" value="Total"/> <input type="text" value="Free Zone"/> <input type="text" value="Palestinian N.A."/> <input type="text" value="Jordan"/> <input type="text" value="Iraq"/> <input type="text" value="Iraq-Foreign"/>		<input type="text" value="2013"/>
<input type="text" value="Search"/>	<input type="text" value="Search"/>		<input type="text" value="Search"/>
<input type="checkbox"/> Beginning of row	<input type="checkbox"/> Beginning of row		<input type="checkbox"/> Beginning of row

The amount of data added to the external version of the demo site –indicates that DOS has come a long way in understanding and using the CNMM model.

Customizing PX-Web since last activity

through remote support from Knudsen some work has also been done on customizing the PX-Web to DOS requirements. In conjunction with the release of PX-Web 2014R2 in December SCB has also added documentation on customization to the website www.scb.se/pc-axis

All texts in the PX-Web interface are translated through a language configuration file. DOS could have advanced this translation work even further.

Issues covered during activity 4.7

As an agenda / work plan for activity DOS had prepared a number of questions / issues that they wanted to discuss with us.

These were:

- Work on directions for languages in the website.
- Integration of a set of tables within a single file, some of these tables part through the PC-edit and others from PX-web

- Add the Arabic language (ar-jo) in the list of languages in the pc-edit.
- Explain the importance of and how to use each of these tables present in the datamode:
- (Columncode, Datastorage, Grouping, Link, linkmenuselection, Maintableperson, Mentabainfo, Organization, Person, Subtablemethod, Textcatalog, Value_r, Valueextra, Valueset_r, Vsgroup, Vsvalue_r).
- Customize the website as Denmark website.
- Explain all the features in PC-EDIT, and Prepare a general example for using all the features
- Explain all the features in PC-EDIT program, and to prepare an example for using all the features in the program and explain all variables and metadata (Important).
- Prepare and explain an example fully integrated, and how to reflect data in the tables on maps. if the experts need anything from us to prepare it from GIS section please tell us.
- In addition, there are many issues and many of questions will be raised during the mission by programmers.
- Providing and bring the source code with them.
- Work on problem (post or refresh) to website that is happen often when choose or select variables.
- When select some of variables and click submit, sometimes going and select all available variables in the lists, and it is not selected from users.

LTR or RTL – Direction of website

PX-Web is mainly developed by Statistics Sweden for own use and for use by partners. All partners until now (Before DOS) are working with Latin or Cyrillic charsets. These alphabets are read from left to right (LTR). In Arabic text is written and read from Right to Left (RTL). Using a combination of CSS, JavaScript and the ASPX master pages in the PX-Web application it is possible to change the layout of PX-Web so that reflects the user interface / user interactions associated with web pages in Arabic.

Documentation on how to customise PX-Web is available from www.scb.se/pc-axis. This document is freely available although it does not include recommendations on changing from LTR to RTL.

Programmers familiar with HTML / CSS and JavaScript should be able to make the necessary changes just by reading through the CSS and looking at the pages using normal web master tools. Some broad guidelines together with script and css code are included in appendix 3 describing the necessary steps.

The displays of the graph component cannot be customized through CSS and scripting. Necessary changes to this can be investigated further – it should not be used as a show stopper.

Need for further customization to DOS needs

The core script and associated CSS file will take DOS a long way towards having a system that can be used in public. When all the texts / descriptions in the interface are translated the product will appear much more finalized and ready. We cannot estimate the time need for translating the rest of the relevant text strings. However experience from Armenia, Bosnia and Kosovo (all have Cyrillic alphabets) indicates that it should take no more than take 3 full working days for a person familiar with the administration interface and who have access to a representative PX data file.

Keep the customization down

We have shown how PX-Web can be customized in look and feel and in handling RTL / ar-JO language only using elements external to the software core. This methodology is in line with all practices for software and internet application development as “logic” and presentation layers are kept strictly separated. Customization applied in this way can easily be transferred to new versions of PX-Web. Currently one major upgrade and one bug fix release is planned every year.

We strongly advised against it but DOS IT still believes that they have requirements for customization that can only be made through changes to the actual program source code.

Integration of tables produced in PX-Edit and CNMM

PX-Web can present a number of databases in the same interface (Root level). The databases can be either based on the CNMM or on PX-files. Inside the data base and / or subject areas it is not possible to mix tables from the CNMM and to plain text PX-files. In terms of creating tables and the day to day updating of tables we see the advantages of mixing data model and PX-tables. But if needed this must be done at the database level. FX all trade data could reside in one database based on CNMM and all other subject areas in a file based structure.

In the long run all data produced by DOS should be store and disseminated through a central repository like the CNMM. However this is a significant long term commitment. A mixed environment is a step on the road.

Access to source code

DOS has expressed a desire to get the source code for PX-Web. If DOS is to get access to the source code DOS will need to negotiate this directly with Statistics Swede who is the official developer of the software. DOS cannot under any conditions expect to get access to the source code before a commitment has been made to use the software and a contract has been signed. However we do not see and neither do we understand the need for the source code.

The concept behind web applications on the dot.net platform is that all functionality / business logic is contained in the “closed” part of the software. Presentation or “Look and feel” is external to the software itself and is located in masterpages, CSS files and image libraries. As we see it – it is not only possible but also the right and proper way to develop software that DOS only makes changes to the masterpages and to the CSS files and images.

When the PX-software is updated and new functionality is included (according to the current roadmap this happens every 6 months) DOS can easily adjust the masterpages and the CSS if new layout elements are introduced. If the source code is fundamentally change by DOS- the new developments will not be available to DOS.

Finally and perhaps most important SCB who develops the software do not have the resources to support other statistical agencies beyond solving reported bugs and these developments that are prioritized by the PX-Web user group.

PX-Web and integration with maps

DOS asked for advice on how to integrate Maps in PX-Web. The technical steps for referring to maps are broadly described in appendix 4. The issue was briefly covered at the last day of the activity,

PX-Map

Currently as part of the PC-Axis co-operation Statistics Finland is developing a new map component to be integrated into PX-Web¹. A version of this is available from Statistics Finland’s web site. The present version should be considered as a beta version and is not production ready. An improved version is expected every moment. The PX-MAP III component is expected to be available in two versions. A free version and a licensed version with extended functionality. The PX-MAP III will be based on SVG technology.

¹ For old (Pre dot.net) versions of PX-Web – PX-MAP is available in a asp.net version however this is not compatible with PX-Web on the dot.Net platform.

PX-Edit

PX-Edit is available from the Statistics Finland web site (see

http://tilastokeskus.fi/tup/pcaxis/lataus_tyokalut_en.html?pxedit=installed)

Together with the software Statistics Finland provides some documentation.

A short description of some main features of PX-edit is included in Appendix 5. The appendix in this report cannot act as documentation of PX-Edit. A version support ar-JO the language culture preferred by DOS has been prepared and made available to DOS.

Orientations on PX-Edit

All aspects of PX-Edit functionality was briefed to DOS staff in detail. Already a large number of files have been produced by DOS. Most files are single language and will now have ar-JO added in order to make sure that the multi lingual aspects can be realized. DOS asked specifically to size limitations on excel files to be read / converted by PX-Edit. All problems are usually related to the structure of the Excel file being invalid / corrupt and not to the file size itself. Recommendations on this issue are available in the PX-Edit main documentation and a short example is available in appendix 5.

Bugs – identified by DOS

During the time spent working with PX-Web since the September activity DOS had experience some problems with the PX-Web user interface. When experiencing such problems, we must recommend, that the errors are described in detail with associated screen dumps, relevant parts of the PX-Web log file and in a way so that they can be reproduced by SCB and the PX-Web developer team.

When described in a reproducible way send the document to pc-axis@scb.se who will then create a bug report and a request for change. Any attempts to debug the software through the source code will not help other PX-Web users and the issue may already be solved and closed in the next release.

Other issues

The following issues were raised during the mission, but have to be forwarded to the PX-Web support in Statistics Sweden:

- CellNotes in CNMM and PX-Web?
- Use of LINK in CNMM and PX-Web?
- Example with multiple Contents in CNMM
- Missing option to set graph title left, right, center og hide
- Copyright = NO no matter the settings in Content (3)
- Footnotes shown twice when using 'Metadata as link' and 'show footnote' [*]

Selection of hierarchical variables

The DOS participants presented a wish to select variable in a hierarchical way. The selection boxes used by PX-Web is not particularly well suited for this way of selecting variable values. A “drill down” type selection cannot be implemented in PX-web.

Hierarchies can be implemented to solve the requirements of DOS. These are prepare / implemented differently in the CNMM model and in PX-Edit. In terms of functionality they appear the same in PX-Web. However, it was not verified whether hierarchies is working with the CNMM datamodel setup at DOS.

Selection using classification lists and the hierarchies key word for PX-Edit is described in Appendix 3.

Population at end of Year ar-JO

Information Footnotes

Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value






* Time	* Omraade
<div>     </div> <div>0 Total 1 Selected</div> <div>2013</div> <div>  <input type="text"/> Search </div> <div>Beginning of row <input type="checkbox"/></div>	<div> <div>— Select classification —</div> <div>0 Total 36 Selected</div> <div> Jordan Total محافظة الزرقاء محافظة البلقاء محافظة العاصمة قضاء العارضة قضاء السلط قضاء حسيبان قضاء أم البساتين قضاء ناعور قضاء ناعور قضاء الموقر قضاء أم الرصاص قضاء الأزرق </div> </div>

Illustration of selection using classification:

3. Conclusions and recommendations

After the activities and the discussions with DOS we have arrived at the following conclusions:

- A large number of tables has been produced by DOS using CNMM and PX-Edit
- Ar-JO can now be added to PX-files
- Bi – lingual files can be added to PX-Web site
- DOS can now use all features of software
- Quality assurance of “content” is needed – Procedures / work shares must be developed
- Quality Assurance must be done by subject matter statisticians and not by the IT unit
- The current installation of PX-Web should be “cleaned” preferably re-installed from scratch
- RTL – LTR
 - Continued work on CSS and Java script (5 working days – web team)
- Customize / localize PX-Web
 - Complete translation of user interface to Arabic
 - (3 work days?)
- Modify CSS according to new web site design
 - (5 working days – webpage team)

As conclude and recommended earlier DOS needs to take a principle decision on moving forward with PX-Web or not. Solutions for solving the outstanding issues are available to DOS.

The outstanding work on adapting PX-Web to Arabic (RTL-LTR conversions) and translating the user interface must be done by DOS along the lines defined in this report. The twinning project can support the work with help and advice as problems appear but the core of the work must be done by DOS.

If / when doing this adaptation work DOS must focus on the overall aim and not be bogged down into small issues of no or little consequence for the finished product.

A large number of tables have been built both using PX-Edit and the CNMM. The number of tables clearly shows that DOS can produce the content. However we do not feel that the content is ready for publishing. Before it can be published it must be quality assured / checked by the subject matter statisticians who are responsible for the statistics. Quality assurance / signing off on the tables as ready to publish are not a task for IT staff.

Dissemination / quality assurance must be thought into the procedures for production at DOS.

We recommend that DOS establish a test environment for PX-Web / CNMM. Currently a number of PX-Web versions are running on the same server. This makes it difficult to isolate / determine when problems are due to wrong metadata, software bugs or conflicts between versions of software running on same webserver.

Appendix 1 – Terms of Reference

Terms of Reference

EU Twinning Project JO/13/ENP/ST/23

25-29 January 2015

Component 4: IT and Online Dissemination

Activity 4.7: Online Dissemination - II

0. Mandatory results and benchmarks for the component

- New database structure defined and online dissemination improved (Apr 2015)
- Assessment report on current situation (Jan 2014)
- Develop a plan for the database structure (July 2014)
- Improve the IT-security (Jan 2015)
- Improve the online dissemination (Apr 2015)

1. Purpose of the activity

- To work on remaining challenges regarding data prepared for the Common Nordic Data Model
- To work on remaining challenges regarding data prepared for the PX-Edit
- To work on remaining challenges regarding the customization of the PX-web
- To identify training needs regarding the dissemination tools

2. Expected output of the activity

- Increased ability of Dissemination staff in (DoS) on how to publish aggregation tables on PX-web that meet the needs of the DOS
- Increased ability of Dissemination staff in (DoS) on how to improve and update the exterior design for PX-WEB that meet the needs of the DOS
- Transfer of the Danish and in general the European Union, experience regarding online dissemination
- To decide upon the preferred timing of the next activity (4.8, Suggestion 8th – 12th March 2015?)
- A lining up of work program for the next activity (4.8)

3. Participants

DoS

Mr Tayseer Deeb, Director of Information Technology (*Component Leader*)

Component team members...

MS experts

Mr Lars Knudsen, Chief Adviser, Web and Online Dissemination, Statistics Denmark

Mr Jesper Ellemose Jensen, Chief Adviser, International Consulting, Statistics Denmark

Programme for the mission

Time		Place	Event	Purpose / detail
Sunday, morning	08.30 – 10.00	Hotel /DoS	Meeting with RTA	To discuss the programme of the week
Sunday, morning	10.00 – 12.00	DoS	Meeting with BC Component Leader and BC Experts	Discussions of the weeks' programme Presentation by DoS on the current status regarding PX-web
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Sunday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Work on remaining challenges.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Monday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	Continued.
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Monday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Tuesday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	Continued.
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Tuesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing

Wednesday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 12.00		Meeting with BC Component Leader and BC Experts	Continued.
	12.00 – 01.00		Break / Preparations / Report writing	Break / Preparations / Report writing
Wednesday, afternoon	01.00 – 03.30	DoS	Meeting with BC Component Leader and BC Experts	Continued.
	03.30 – 04.00		Preparations / Report writing	Preparations / Report writing
Thursday, morning	08.30 – 09.30	DoS	Preparations / Report writing	Preparations / Report writing
	09.30 – 11.30		Meeting with BC Component Leader and BC Experts	Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader
	Ad-hoc meetings			
Thursday, morning	11.30 – 12.30	DoS	Meeting with BC Component Leader	Presentation for BC Project Leader
Thursday, noon	12.30 – 01.00	DoS	Debriefing with BC Project Leader	Conclusions and decisions and their consequences for the next activity and the implied work programme for BC Experts

Appendix 2 – Persons met

Mr Abdel Wadood Matouk, BC project leader

Mr Tayseer Deeb, Director of Information Technology (Component Leader)

Rana A. Swaidat, IT/ Head of Development Unit

Rania Abu Dhaim, Head of programming and analysis

Abdullah Al –Sous, Web Dissemination section/IT

Manal Khuffash, Web Dissemination section/IT

Mohammad Hasan Network Engineer/ IT

Hussam Abu Shukor

RTA Team:

Thomas Olsen, RTA

Christine Salman, RTA assistant

Mohammad Mahkadmeh, Interpreter

Appendix 3 – RTL – LTR – Layout changes and Other Issues

From www.scb.se/pc-axis the PX-Web software is available for download. Together with the software there is a customisation guide describing the recommended way for making changes to the look and feel of the software.

We recommend adapting PX-Web to RTL (right to left) presentation using javascript. The script should be placed in the PxWeb.MASTER.APSX file.

The script is shown below.

```
<script type="text/javascript">
  if (document.getElementsByClassName('siteLogoText')[0].innerHTML != 'PX-Web 2014
Dec') {
    var head = document.head
    , link = document.createElement('link')
    link.type = 'text/css'
    link.rel = 'stylesheet'
    link.href = 'http://127.0.0.1/PXWeb/Resources/Styles/RtlCustom.css'
    head.appendChild(link);
  }
</script>
```

The script overwrites the relevant css elements with the css elements found in the RtlCustom.css which is shown below:

```
/* Add your overrides for Right-To-Left changes */
```

```
body {
  direction: rtl;
}
.headerleft {
  float: right;
}
.headerright {
  float: left;
}
.menuTopLeftContent {
  float: right;
}
.variableselector_valueselect_box {
  float: right;
}
.tableofcontent_link {
  background: url();
  padding-right: 20px;
}
.table-class th {
```

text-align: right;

The script and the css is in our opinion the best way to implement the RTL. More changes will / may be required but identifying these changes is well inside the normal job description of a web master.

العربية (الأردن)

قواعد بيانات الجداول الإحصائية PX WEB

Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic << الأوعية والمشروبات غير الكحولية << CPI << DOS << >>

Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic

Information Footnotes
Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

* Time - Arabic	* COICOP - Arabic
0 Total 146 Selected	0 Total 125 Selected
May - 2002 June - 2002 July - 2002 August - 2002 September - 2002 October - 2002 November - 2002 December - 2002 January - 2003 February - 2003 Mars - 2003 April - 2003 May - 2003	CPI 01 الأغذية والمشروبات غير الكحولية 01.1 الخاء 01.1.1 الخبز والحبوب 01.1.2 اللحوم 01.1.3 السمك 01.1.4 الحليب والبيض 01.1.5 زيوت ودهون 01.1.6 الفاكهة 01.1.7 الخضروات 01.1.8 السكر والفربي والمسل وشوكولاته والخطوب 01.1.9 المنتجات الغذائية n.e.c 01.2 المشروبات غير الكحولية

Screen dump showing the partially converted PX-Web displaying by lingual PX table.

The possibilities for adapting the graph module to RTL will need further investigation.



Screen dump showing PX-Web displaying by lingual PX table as a graph.

Looking at DOS printed publications most illustrations / graph appears LTR and not RTL.

Files saved as EXCEL

As can be seen from the illustration below extractions from the database saved as EXCEL files are oriented LTR and not RTL.

	A	B	C	D	E	F	G
1	Consumer Price Index	Jesper Stand	حسب COICOP - Arabic و Time - Arabic				
2							
3	42339	CPI	01-05-2002	100			
4			01-06-2002	98,4			
5			01-07-2002	96,9			
6			01-08-2002	96,8			
7			01-09-2002	98,6			
8			01-10-2002	100,2			
9			01-11-2002	100,6			
10			01-12-2002	101,4			
11			01-01-2003	102			
12			01-02-2003	101,4			
13			2003 - Mars	102,6			

DOS should investigate through dialog with users if this is an issue or not.

	Consumer Price Index	Jesper Stand	حسب COICOP - Arabic و Time - Arabic				
			01-05-2002	01-06-2002	01-07-2002	01-08-2002	01-09-2002
01		الأغذية والمشروبات غير الكحولية	100	97,1	94,2	93,4	96,1
01.1		الغذاء	100	96,8	93,6	92,7	95,7

Another issue that DOS should pay attention to is the use of date formats. In the above example Excel has converted / interpreted the date information differently than its written in the PX-file.

Time - Arabic و COICOP - Arabic حسب Consumer Price Index Jesper Stand

3	- 2003	- 2003	- 2002	- 2002	- 2002	- 2002	- 2002	2002	2002	- 2002	
s	February	January	December	November	Oktober	September	August	July -	- June	May	

Folder / database names

When working with px-files the name of the table areas is usually defined in an alias file. There is one alias file for each language needed. In this case the files should be named alias_ar-Jo.txt and alias.txt / alias_en.txt depending on the main language preferred by DOS.

Selection using classifications in PX-Edit / PX-Map

For every variable it is possible to use a classification / aggregation list to select a sub set of the variable.

العربية (الأردن)

قواعد بيانات الجداول الإحصائية PX WEB

Population at end of Year ar-JO << Aggregations_II << DOS << ⬆

Population at end of Year ar-JO

Information Footnotes
Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

* Time	* Omraade
0 Total 1 Selected	0 Total 36 Selected
2013	Jordan Total
	إمارة الزرقاء
	إمارة البلقاء
	إمارة العاصمة
	إمارة المفرات
	إمارة السالم
	إمارة حسيان
	إمارة ام البساتين
	إمارة ناعور
	إمارة ناعور
	إمارة القروان
	إمارة ام قريش
	إمارة الأريش

Search
Beginning of row ☐

In this example values from variable "omraade" can be selected either directly or from 3 different classifications:

Mark your selections and choose between table on screen and file format. Marking tips
For variables marked * you need to select at least one value

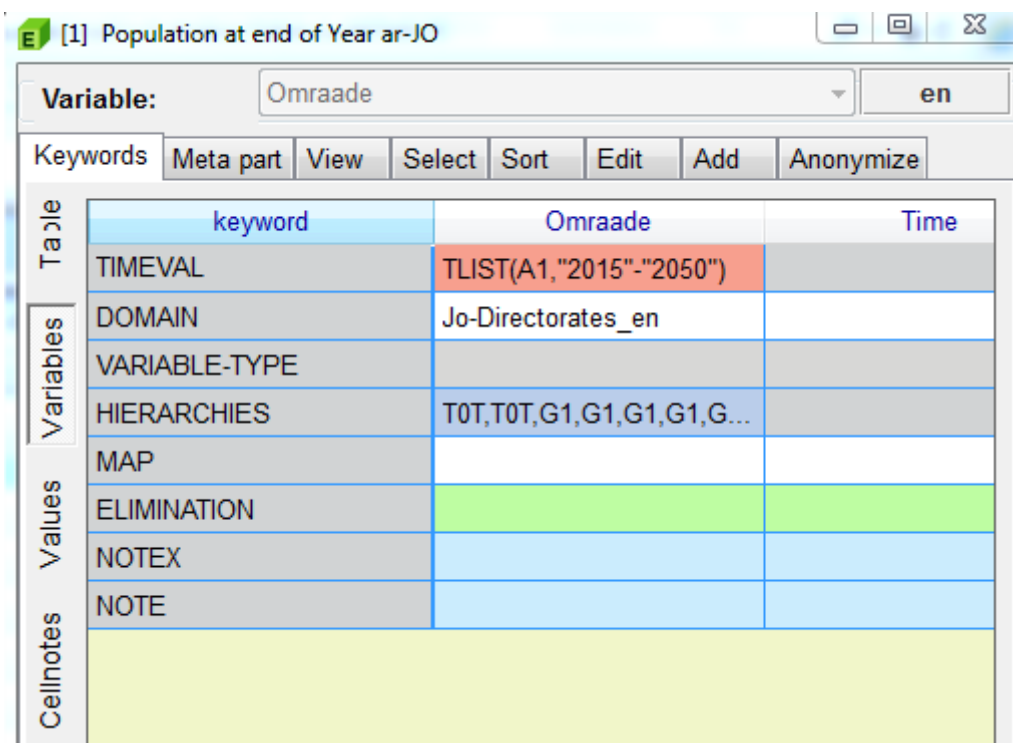
* Time	* Omraade
0 Total 1 Selected	— Select classification —
	Governorates in Jordan
	Districts in Ammann Governorate
	Districts in Balqa Governorate

The classification is described in two files

A valueset file and an aggregation file: (*.vs and *.agg)

Both files must be placed in the C:\inetpub\wwwroot\PXWEB\Resources folder.

If the the PX-file has two langauges then there must be a VS file and a AGG file for each langauge in the file. In the PX-file the variable is connected to the VS file by the DOMAIN keyword.



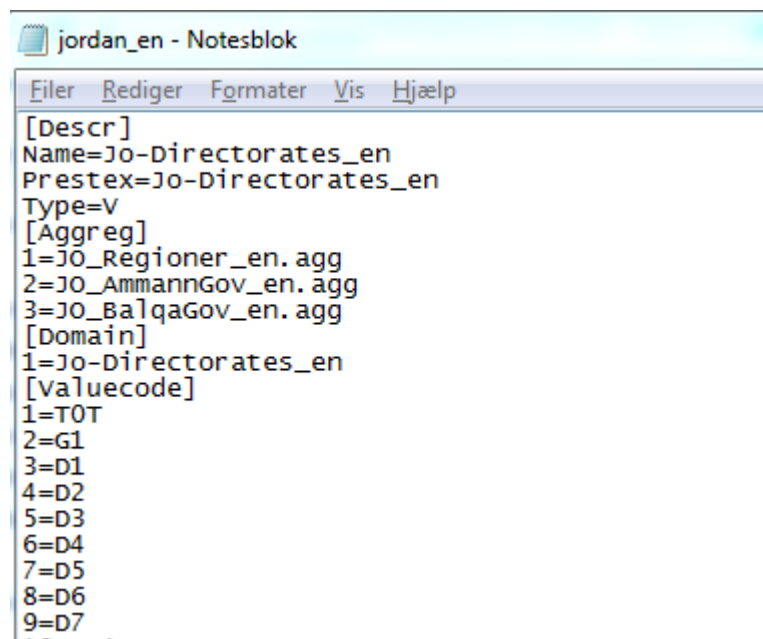
keyword	Omraade	Time
TIMEVAL	TLIST(A1,"2015"-"2050")	
DOMAIN	Jo-Directorates_en	
VARIABLE-TYPE		
HIERARCHIES	T0T,T0T,G1,G1,G1,G1,G...	
MAP		
ELIMINATION		
NOTEX		
NOTE		

The DOMAIN keywords value will differ from ValueSet to ValueSet.

The VS file

Below is the beginning of VS file "jordan_en.vs" being referred to in the example above. The VS files lists all values for the variable and the aggregations that are based on the value set.

Keywords are written inside [] with the information on one or more lines below.



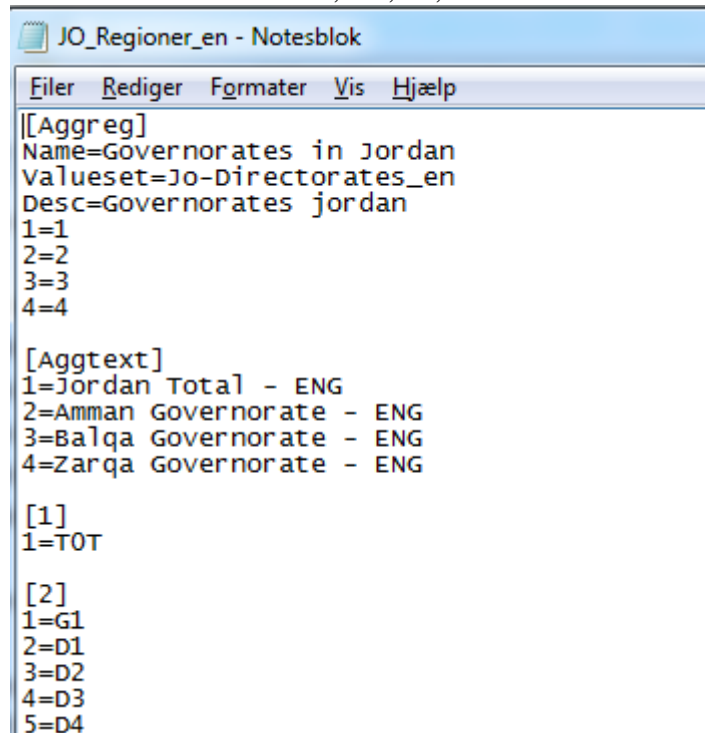
```

jordan_en - Notesblok
File Rediger Formater Vis Hjælp
[Descr]
Name=Jo-Directorates_en
Prestex=Jo-Directorates_en
Type=v
[Aggreg]
1=JO_Regiomer_en.agg
2=JO_AmmannGov_en.agg
3=JO_BalqaGov_en.agg
[Domain]
1=Jo-Directorates_en
[Valuecode]
1=T0T
2=G1
3=D1
4=D2
5=D3
6=D4
7=D5
8=D6
9=D7

```

The AGG file

In the example below the aggregation “*Governorates in Jordan*” refers to the valueset “*jordan_en*”. It has 4 values (*Jordan Total*, *Amman Governorate*, *Balqa Governorate* and *Zarqa Governorate*). Each value is made up of a text and one or more selections. So in this case “*Jordan –Total – ENG*” is selected as the value TOT. “*Amman Governorate - ENG*” is selected as the values G1, D1,D2, and so on.



```
[[Aggreg]
Name=Governorates in Jordan
Valueset=Jo-Directorates_en
Desc=Governorates jordan
1=1
2=2
3=3
4=4

[Aggtxt]
1=Jordan Total - ENG
2=Amman Governorate - ENG
3=Balqa Governorate - ENG
4=Zarqa Governorate - ENG

[1]
1=TOT

[2]
1=G1
2=D1
3=D2
4=D3
5=D4
```

As an example the following files are made available to DOS.

Arabic_two_domains.px

Jordan.vs

Jordan_en.vs

Jo_regioner.agg

Jo_regioner_en.agg

Jo_ammannGov.agg

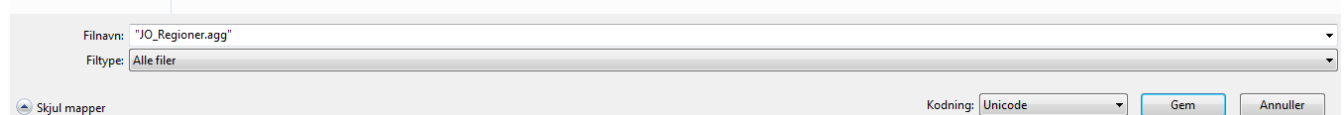
Jo_ammannGov_eng.agg

Jo_balqaGov.agg

Jo_balqaGov_eng.agg

Currently all *.vs and *.agg files must be made by hand using a text editor like notepad. The text editor must support the Arabic alphabet.

It is important that the extension txt is NOT added to the file name. This is usually done by saving the file in “” like this:



Remember also to use UNICODE / UTF-8 and not ANSI to ensure that the arabic letters are correctly saved.

If there are errors in the *.VS and / or *.AGG file PX-Web will not work correctly.

Selection through hierarchies

The key word HIERARCHIES opens a different selection screen:

keyword	Omraade	Time
TIMEVAL	TLIST(A1,"2015"-"2050")	
DOMAIN	Jo-Directorates_en	
VARIABLE-TYPE		
HIERARCHIES	T0T,T0T,G1,G1,G1,G1,G...	
MAP		
ELIMINATION		
NOTEX		
NOTE		

When the keyword is present and the hierarchies are correctly defined a trident will be added above the variable selection :

العربية (الأردن)

قواعد بيانات الجداول الإحصائية PX WEB

Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic << Selection_demo << DOS_III << ↑

Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic

Information Footnotes

Mark your selections and choose between table on screen and file format. Marking tips

For variables marked * you need to select at least one value

* Time - Arabic	* COICOP - Arabic
<div> <div>↓</div> <div>↑</div> <div>→</div> <div>✓</div> </div>	<div> <div>↓</div> <div>↑</div> <div>→</div> <div>✓</div> <div>⌂</div> </div>
0 Total 146 Selected	0 Total 125 Selected

The HIERARCHIES selection screen looks like this when the trident icon is selected:

العربية (الأردن)

قواعد بيانات الجداول الإحصائية



Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic << Selection_demo << DOS_III << ⬆

Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic

Information Footnotes

☒ Select all ☒ Clear all ☐ Open all ☒ Close all
 COICOP - Arabic

CPI

- ☒ 01. الأغذية والمشروبات غير الكحولية ☒ 02. المشروبات الكحولية والتبغ
- ☐ 03. الملابس والأحذية
 - ☐ 03.1 الملابس
 - ☒ 03.1.1 المواد الملابس
 - ☐ 03.1.2 للملابس الجاهزة
 - ☐ 03.1.3 مقالات أخرى من الملابس والاكسسوارات والملابس
 - ☐ لا في الدانماركية- 1 ☐ 03.2 الأحذية ☐ 03.1.4 تنظيف وإصلاح وتأجير الملابس
 - ☒ 04. السكن، والمياه والكهرباء والغاز وأنواع الوقود الأخرى
 - ☐ 05. المفروشات والمعدات المنزلية وأعمال الصيانة الروتينية من المنزل
 - ☐ 05.1 الأثاث والمفروشات والسجاد وأغطية الأرضيات الأخرى
 - ☐ 05.1.1 الأثاث والمفروشات
 - ☐ 05.1.2 السجاد وأغطية الأرضيات الأخرى
 - ☐ 05.2 المنسوجات المنزلية
 - ☐ 05.3 الأجهزة المنزلية
 - ☐ لا في الدانماركية-2
 - ☐ 05.3.1-2 الأجهزة المنزلية الرئيسية سواء الأجهزة الكهربائية المنزلية الكهربائية أم لا والصغيرة
 - ☐ لا في الدانماركية- 4 ☐ 05.5 أدوات ومعدات لمنزل وحديقة ☐ لا في الدانماركية-3. ☐ 05.4 زجاجيات وأدوات المائدة والأواني المنزلية
 - ☐ 05.6.2 الخدمات المنزلية والخدمات المنزلية ☐ 05.6.1 السلع المنزلية غير المعمرة ☐ 05.6 السلع والخدمات لأعمال الصيانة الاعتيادية للبيوت
 - ☐ 06. الصحة
 - ☐ 06.1-2-3 منتجات طبية أخرى، الأجهزة والمعدات العلاجية ☐ 06.1.1 منتجات صيدلانية ☐ 06.1 المنتجات الطبية، والأجهزة والمعدات
 - ☐ 06.2 خدمات المستشفيات ☐ 06.2.2 خدمات طب الأسنان ☐ 06.2.1 3 الخدمات الطبية وشبه الطبية ☐ 06.2 الخدمات للمرضى الخارجيين
 - ☐ لا في الدانماركية-5

In PX-Edit hierarkies can be defined and edited in the screen below:

E [1] Consumer Price Index Jesper Stand by COICOP - Arabic and Time - Arabic

File Edit Window Language

CPI

الأغذية والمشروبات غير الكحولية

01.1 الغذاء

01.1.1 الخبز والحبوب

01.1.2 اللحوم

01.1.3 السمك

01.1.4 الحليب والجبن والبيض

01.1.5 زيوت ودهون

01.1.6 الفاكهة

01.1.7 الخضروات

01.1.8 ربي والعسل والتسكولاته والحلويات

01.1.9 المنتجات الغذائية n.e.c.

01.2 المشروبات غير الكحولية

01.2.1 القهوة والشاي والكافا

01.2.2 المشروبات الغازية، عصير الفواكه والخضار

02. المشروبات الكحولية والتبغ

02.1 المشروبات الكحولية

02.1.1 الأرواح

02.1.2 النبيذ

02.1.3 البيرة

02.2 التبغ

02.2.0.1 السجائر

03. الملابس والأحذية

03.1 الملابس

03.1.1 المواد الملابس

125 rows x 146 columns = 18 250 figures

Variable: [1] Consumer Price Index Jesper Stand by COICOP - Arabic and Tim...

Keywords Me

Table

Variables

Values

Cellnotes

TIMEVAL

DOMAIN

VARIABLE

HIERARCHY

MAP

ELIMINAT

NOTEX

NOTE

HIERARCHY("COICOP - Arabic")

	parent	HIERARCHYNAMES
01-12	01-12	CPI
01	01-12	الأغذية والمشروبات غير الكحولية
01.1	01	الغذاء
01.1.1	01	الخبز والحبوب
01.1.2	01	اللحوم
01.1.3	01	السمك
01.1.4	01	الحليب والجبن والبيض
01.1.5	01	زيوت ودهون
01.1.6	01	الفاكهة
01.1.7	01	الخضروات
01.1.8	01	المربى والعسل والشاي...
01.1.9	01	المنتجات الغذائية n.e.c.
01.2	01	المشروبات غير الكحولية
01.2.1	01	القهوة والشاي والكافا
01.2.2	01	المياه المعدنية والمشروبات الغازية
02	01-12	المشروبات الكحولية والتبغ
02.1	02	المشروبات الكحولية

HIERARCHYLEVELSOPEN 2

Clear Close OK

Set.. Defaults Import..

Close

If values are not included in the hierarchy it will not work when the file is displayed in PX-Web.

Various types of NOTES:

Notes can be placed at the table level, at the variable level, the variable value level and finally at specific data cells.

The notes are defined in PX-Edit.

An example showing the different types of notes is included in the file:

Demo_different_types_of_notes.px

A selection of notes from the example file is shown below:

Consumer Price Index - All types of notes		
June - 2014	May - 2002	
127.25	100.00	CPI
135.51	100.00	01. الأغذية والمشروبات غير الكحولية
137.99	100.00	01.1. الغذاء
169.93	100.00	01.1.1. الخبز والحبوب
142.08	100.00	01.1.2. اللحوم
135.16	100.00	01.1.3. السمك
125.56	100.00	01.1.4. الحليب والبيض
132.65	100.00	01.1.5. زيوت ودهون
128.75	100.00	01.1.6. الفاكهة
87.42	100.00	01.1.7. الخضروات

Footnotes

COICOP - Arabic
DATA IS DEMO ONLY - Mandatory at table level

COICOP - Arabic
DATA IS NOT REAL DEMO ONLY - at table level

COICOP - Arabic
CPI
In english needs translation to arabic

COICOP - Arabic
CPI
Also needs translation to arabic

COICOP - Arabic: CPI , Time - Arabic: 2002 - May
Cellnotex - first obs arabic

COICOP - Arabic: CPI , Time - Arabic: 2014 - June
Cellnotex - last obs arabic

COICOP - Arabic: CPI , Time - Arabic: 2002 - May
Cellnote - first obs arabic

The various notes cannot be numbered. Instead they are shown in the order they appear in the data and are identified by the names of variables and variable values. This means that notes related to variable values / data cells not selected are not shown.

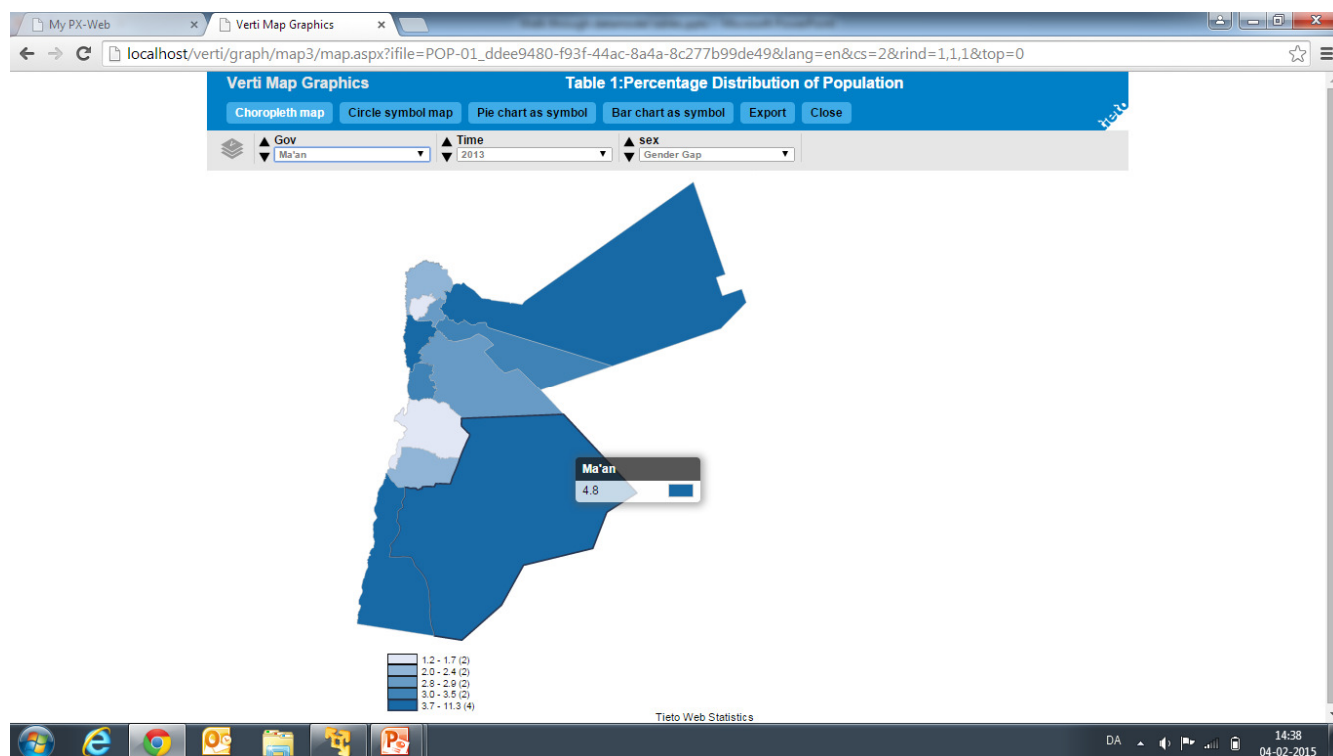
Appendix 4 – Integration with Maps

To use PX-Map with PX-Web, two things are required: 1) The PX-Map 3 software is installed on the server together with PX-Web, and 2) SVG-maps are created.

DOS was supplied with the necessary software and instructions to do this. A map for “Governorates” of Jordan was created in SVG, and demonstrated on the experts pc (using PX-Web 2013). It is important that the maps created is using the same codes for regions, countries etc. as used for the tables in PX-Web.

The screenshot shows the PX-Web 2013 web application running in a browser. The browser address bar shows the URL: localhost/PXWeb/pxweb/en/Demo/-/POP-01.px/table/tableViewLayout1/?rxid=4a8df53d-7603-4cf8-bcd1-14315de8b07a. The page title is "PX-Web 2013". Below the title, there is a navigation bar with "Edit and Calculate", "Save As", and "Table - Layout 1". There are also icons for "PX", "CSV", and "XLSX". The main content area displays a table titled "Table 1: Percentage Distribution of Population by Gov, sex and Time". The table has columns for Governorate, Gender Gap, and years 2013, 2012, 2011, 2010, and 2009. The data is as follows:

	Gender Gap				
	2013	2012	2011	2010	2009
Amman	2.8	2.8	2.8	2.8	2.8
Balqa	3.9	3.8	3.8	3.8	3.8
Zarqa	3.5	3.4	3.4	3.4	3.5
Madaba	3.0	3.0	2.9	2.9	3.0
Irbid	2.4	2.4	2.4	2.4	2.4
Mafraq	3.7	3.6	3.7	3.7	3.7
Jarash	2.9	2.8	2.8	2.8	2.9
Ajlun	1.7	1.8	1.8	1.8	1.7
Karak	1.2	1.2	1.2	1.2	1.2
Tafiela	2.0	1.8	1.8	1.8	2.0
Ma'an	4.8	4.8	1.8	1.8	4.8
Aqaba	11.3	11.4	11.2	11.2	11.3



Appendix 5 – PX-Edit

The configuration of PX-Edit is defined by the configuration file:

C:\Program Files (x86)\PX-Edit 2013 version 3.1\ PX-Edit_main_31.ini

A special version support ar-JO – the Jordanian dialect of Arabic has been prepared by kind support by Statistics Finland at handed over to DOS.

In general the software and associated documentation is available from:

http://tilastokeskus.fi/tup/pcaxis/lataus_tyokalut_en.html

A rudimentary description of the keywords are found below:

Description of the keywords found in PX-file

A technical description of all keywords in the PX-file is found on the www.scb.se/pc-axis website. In this paper the keywords are described shortly from a dissemination perspective.

Keywords at table level

The keywords below applies at the table level.

AXIS version

Use 2013 as value – but is in reality not use. But should be added to ensure that the file is correctly formatted.

Language

Default language of the file.

Languages

Secondary languages found in the file.

CreationDate

Date the file is created. Most relevant for files extracted from metadata model. Should be set to the date when the data in file is published / released for the first time.

Next-Update

Next planned update for the data- self explanatory.

PX-Server

Not necessary – but I suggest that you add a standard text to be decided on

Directory-Path

Not necessary - Ignore

Update Frequency

Frequency / periodicity of the table. Establish a naming convention so that Monthly, Quarterly, or Yearly is always written the same way.

TableId

ID of the table – should be unique but is not mandatory

Synonyms

Support for search engine in PX-WEB. You can add descriptive words that users would like to search for but that are not found in the variable names or the variable values. In a table on CPI the obvious synonym is Inflation and / price changes.

Decimals

The number of decimals stored in the file. Will be automatically determined by PX-Edit when the file is created from an Excel file.

ShowDecimals

The number of decimals that are shown to the users. In principle the statisticians should deliver the data with the number of decimals that they want to show / present to the users.

Rounding

See the PX-Edit documentation – But can assume the values 0 or 1.

Matrix

Should equal the name of the file. Establish a naming convention.

Aggregation allowed

Aggregation allowed or not. Affects PX-Web user interface. Users should not be allowed to aggregated index data – like CPI.

Subject Code

Establish naming convention to be used consistently by DOS. Unique code identifying the subject area.

Subject Area

Title of the statistical “subject area” that the table belongs to. Establish a list of Subject area(s) and subject codes. It is important that the subject areas are used consistent in publications, databases, metadata and other DOS communications.

Copyright

Can be Yes or No. If Yes is copyright refers to organization named under the SOURCE keyword.

Description

Used to describe the table in the subject area depending on DESCRIPTIONDEFAULT. Relates also to TITLE

Title

Is not needed if DESCRIPTION is filled out. Will be generated on basis of the variable is Description is left out.

Title is often automatically generated by PX-Edit based on the name of variables and the headline of the Excel file.

Description Default

Can be either YES or NO. Play with it so you can see what happens when you make changes.

Units

The unit that the table is counting in. Please establish a naming convention to be used consistently through out DOS. This could be Thousands, Index, Tons, Kilos....

ContVariable

Indicates that the table has more than one contents. Relates to Units. If more than one unit is used in the table a variable should be dedicated to show the values of Units used

Last-updated

Not needed. Mainly related to manipulations in PC-Axis.

STOCKFA

Indicates if data is S(tock),F(low),A(average) – Often used with ContVariable

CFPRICES

Indicates if data is in (C)onstant or F(ixed) prices

DAYADJ

If data is adjusted for working days or not. Default is NO. But properly not relevant.

SEASADJ

If data is seasonally adjusted or NOT. Default is NO.

Contact

contact information for person / or office responsible for this particular table. Again use a naming convention for KAS. Alternatively generic email addresses and telephone numbers that refers to a section / division and not a particular employee.

Refperiod

The exact period for the figures in the table. A naming conventions should be established.

Baseperiod

Is shown in footnote. Used to defined the base period of index fx 2000 equals 100

Database

Name of the database that the data / statics is retrieved from.

Source

Name of the organization producing the Statistics- a default can be defined in PX-Edit – alternatively establish a naming convention to ensure that it is written in a uniform way.

INFO

Information that can be store in the file. Is displayed in PX-Web but not PC-AXIS:

INFOFILE

Name of file with addition information about the statistics- the file must be placed in the same folder / directory as the PX-table.

NOTEX

Mandatory footnote – is displayed before the use can see any figures. A way of marking something that's absolutely necessary.

NOTE

Is shown after selection. Information text stored at the table level. NOTE, NOTEX is also available at the variable and variable value level.

Keywords at the variable level

Having filled out the metadata at the table level – you can fill out the metadata related to the variables. None of the keywords at the variable level are mandatory so PX-Web will work even if you don't fill them out.

The screenshot shows the PX-Web interface for editing metadata. The title bar indicates the file is '[1] Consumer Price Index Kosovo by COICOP and Time'. The 'Variable:' dropdown is set to 'COICOP'. Below this is a menu bar with options: Keywords, Meta part, View, Select, Sort, Edit, Add, and Anonymize. The main area is a table with columns 'keyword', 'COICOP', and 'Time'. The table has rows for various keywords: TIMEVAL, DOUBLECOLUMN, DOMAIN, VARIABLE-TYPE, HIERARCHIES, MAP, ELIMINATION, NOTEX, and NOTE. The rows are color-coded: TIMEVAL (red), DOUBLECOLUMN (green), DOMAIN (white), VARIABLE-TYPE (white), HIERARCHIES (blue), MAP (white), ELIMINATION (green), NOTEX (blue), and NOTE (blue). On the left side of the table, there are vertical labels: 'Table' for the first row, 'Variables' for the next four rows, 'Values' for the next three rows, and 'Cellnotes' for the last two rows.

keyword	COICOP	Time
TIMEVAL		
DOUBLECOLUMN		
DOMAIN		
VARIABLE-TYPE		
HIERARCHIES		
MAP		
ELIMINATION		
NOTEX		
NOTE		

TIMEVAL

See the documentation for a detailed description. Applies to the variable containing time.- Timeval is required to support conversion of data into AREMOS / Gesme /Ecoser format. In the short to medium term for this project it is not relevant to fill out this information.

DOUBLECOLUMN

Can be Yes or No. Has only effect on the screen if users chooses the MATRIX format for output. Is used to separate values and codes. Can be ignored for our purpose.

DOMAIN

Determines which value sets and therefore which value sets and aggregation lists that can be used together with the file.

VARIABLE-TYPE

Can be ignored. Is not shown in PC-axis.

HIERARCHIES

Defines hierarchies for the variable.

MAP

References to MAP that can present data related to the variable.

ELIMINATION

Users are required to select at least one value for a variable. But ELIMINATION can be used to pre select a value. In principle any value can be used as the default selection but in this case it makes sense to select the overall CPI as default. Elimination can also be set to YES. If elimination is set to YES PX-EDIT will aggregated all values in to a total.

Warning: If you have sun totals in a table setting ELIMINATION = YES will create a TOTAL that is too big.

NOTEX

Mandatory footnote related to the specific variable.

NOTE

Note related to the variable.

Metadata related to the variable values

Like the metadata related to the variable – it is not necessary to set any metadata for the values.

[1] Consumer Price Index Kosovo by COICOP and Time

Variable: COICOP en

Keywords Meta part View Select Sort Edit Add Anonymize

	value	PRECISION	VALUENOTEX	VALUENOTE
CPI				
01. Food and non-alcoholic beverages				
01.1 Food				
01.1.1 Bread and cereals				
01.1.2 Meat				
01.1.3 Fish				
01.1.4 Milk, cheese and eggs				
01.1.5 Oils and fats				
01.1.6 Fruit				
01.1.7 Vegetables				
01.1.8 Sugar, jam, honey, chocolate and confectionary				
01.1.9 Food products n.e.c.				
01.2 non-alcoholic beverages				
01.2.1 Coffee, tea and cocoa				
01.2.2 Mineral waters, soft drinks, fruit and vegetable juices				
02. Alcoholic beverages, tobacco				
02.1 Alcoholic beverages				
02.1.1 Spirits				
02.1.2 Wine				

133 PRECISION Set.. Defaults Import..

PRECISION

Makes it possible to show single values with more decimals than specified in the SHOWDECIMALS Keyword.

VALUENOTEX

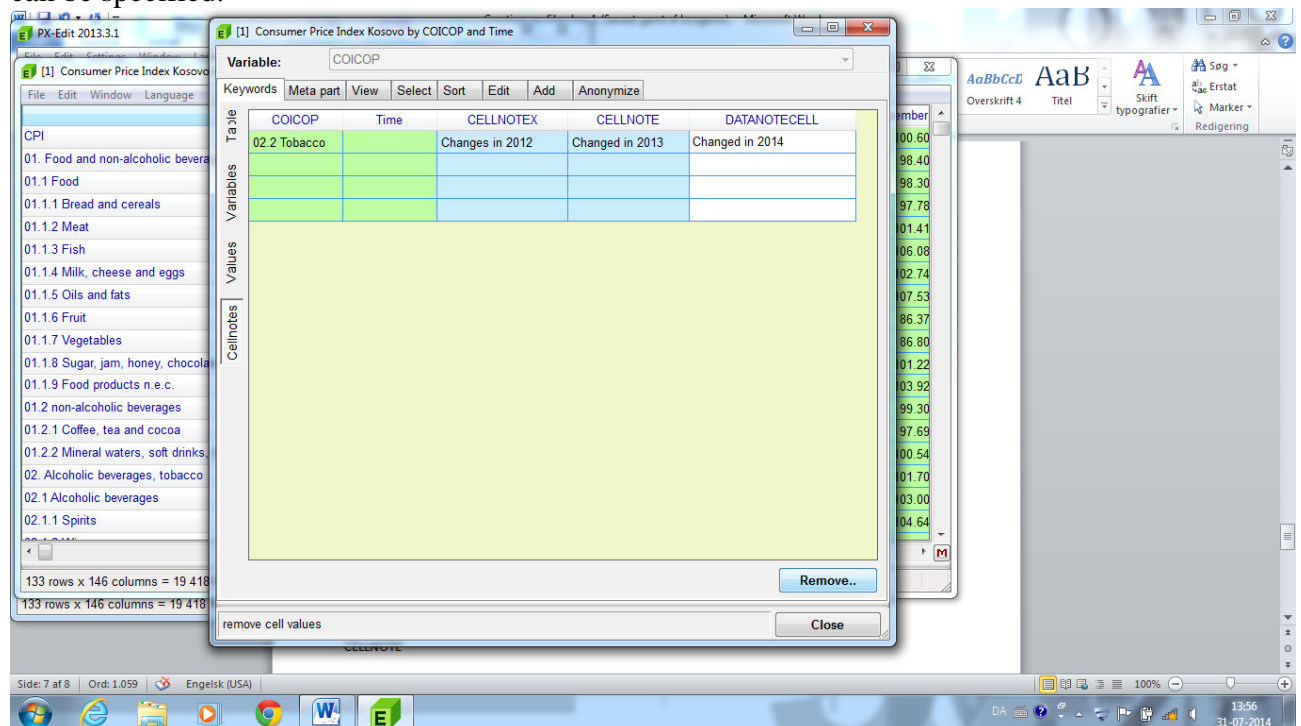
Same as at the table / variable level –now just related to the specific vale.

VALUENOTE

Same as at the table / variable level –now just related to the specific vale.

Metadata at the cell level

Also at the cell level – (specific combinations of variable – values) different types of notes can be specified.



CELLNOTEX

Mandatory information at the cell level – shown before selection

CELLNOTE

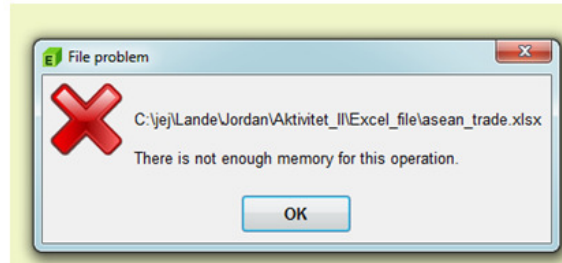
Information at the cell level

Reading EXCEL file using PX-Edit

PX-Files can be created from EXCEL files using PX-Edit. Please refer to the PX-Edit documentation for how to structure the EXCEL files for easy reading into PX-Edit.

When a memory error like below happens – it is not a question of the Excel file being “to big” to read.

- Not enough – memory
- File structure – not file size is the problem
- PX-Edit determines the number of variables and values



It is a question of the EXCEL file having the wrong structure as in the example below.

Wrong structure

	A	B	C	D	E	F
1	01: ASEAN Trade based on the ASEAN Harmonized Tariff Nomenclature (AHTN) 8-digit (2010-2011) by Commodity, Year, Partner Region and Flow					
2						
3						
4			2010		2011	
5			ASEAN		ASEAN	
6			Export	Import		
7	01011000	01011000:- Pure-bred breeding animals	33,518	47,127	104,853	48,224
8	01019030	01019030:- - Horses	1,711,407	489,009	1,762,992	1,304,703
9	01019090	01019090:- - Other	5,274	9,040	45,945	2,809
10	010190MM	010190MM:LIVE HORSES, ASSES, MULES AND HINNIES (EXCL. PURE-BRED FOR	0	0	0	0
11	01021000	01021000:- Pure-bred breeding animals	7,272,211	24,119,727	2,447,786	20,263,829
12	010210MM	010210MM:PURE-BRED BREEDING BOVINES	0	0	0	0
13	01029010	01029010:- - Oxen	23,623,526	36,313,568	29,398,937	16,852,247
14	01029020	01029020:- - Buffaloes	2,580,211	7,829,466	1,125,812	5,141,367
15	01029090	01029090:- - Other	819,015	1,490,221	1,902,454	401,317
16	010290MM	010290MM:LIVE BOVINE ANIMALS (EXCL. PURE-BRED FOR BREEDING)	0	7,159,368	0	1,632,870

When the structure is wrong – PX-Edit reads / understands the table as having too many variables.

Right structure

	A	B	C	D	E	F
1	01: ASEAN Trade based on the ASEAN Harmonized Tariff Nomenclature (AHTN) 8-digit					
2	Time		2010		2011	
3	Country		ASEAN		ASEAN	
4	Flow				Export	Import
5	Commodity	Commodity				
6	01011000	01011000:- Pure-bred breeding animals	33,518	47,127	104,853	48,224
7	01019030	01019030:- Horses	1,711,407	489,009	1,762,992	1,304,703
8	01019090	01019090:- Other	5,274	9,040	45,945	2,809
9	010190MM	010190MM:LIVE HORSES, ASSES, MULES AND HINNIES (EXCL. PURE-BRED FOR I	0	0	0	0
10	01021000	01021000:- Pure-bred breeding animals	7,272,211	24,119,727	2,447,786	20,263,829
11	010210MM	010210MM:PURE-BRED BREEDING BOVINES	0	0	0	0
12	01029010	01029010:- Oxen	23,623,526	36,313,568	29,398,937	16,852,247
13	01029020	01029020:- Buffaloes	2,580,211	7,829,466	1,125,812	5,141,367
14	01029090	01029090:- Other	819,015	1,490,221	1,902,454	401,317
15	010290MM	010290MM:LIVE BOVINE ANIMALS (EXCL. PURE-BRED FOR BREEDING)	0	7,159,368	0	1,632,870
16	01031000	01031000:- Pure-bred breeding animals	3,193,671	5,908,759	10,510,136	3,884,597
17	010310MM	010310MM:PURE-BRED BREEDING SWINE	0	0	0	0
...						

