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PC-Axis country report - Finland - 2007

Experiences with PC-Axis product family - Statistics Finland

PC-Axis International Reference Group Meeting, Helsinki, 5-7 September 2007

Briefly on the background

- According to Statistics Finland's web-based service policy drawn up in November 2003: "Both free and charged dissemination of data from table databases shall concentrated into the PX-Web service."
- The transfer of the free StatFin database service from the StatLine platform to the PX-Web platform was started in September 2006. The project is due for completion in October 2007.

Project on the design and implementation of StatFin contents

The task of the project is not conversion of the contents from the StatLine system to PX-Web, but extension of their coverage, their rearrangement by topic, and standardisation of the use of classifications, table views and the quality of metadata. The structure of the new StatFin database follows the same division into statistics and topics (26 topics, over 200 sets of statistics) that is used on the static web pages of statistics (http://www.stat.fi/til/index_en.html)

A further aim is closer integration of the web pages of individual statistics with the StatFin database. In practice, this means making links from the footnotes of PX-Web tables to the descriptions, quality reports, concepts and definitions, and methodological descriptions that are published on the web pages of each set of statistics. The aim is also to make the database tables relating to each set of statistics as strongly visible as possible on the home pages of each set of statistics

On 24 August 2007, when the project is still in progress, the data contents of the new PX-Web StatFin databases are as follows:

In Finnish: 82 sets of statistics, 319 tables

In Swedish: 23 sets of statistics, 92 tables

In English: 24 sets of statistics, 88 tables

When the project concludes in October 2007, the new StatFin database will contain tables in Finnish from approximately 130 sets of statistics. The Swedish and English language data contents of the database will have grown essentially from the past and the intention is to continue expanding them even further.

The StatFin database is built of the PC-Axis files published on the PX-Web server. In the course of the redesigning project, a new file updating application will also be introduced for timed file transmission to the PX-

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Web server. The updates and their timed transmissions will be done by the persons who are responsible for the sets of statistics concerned in the statistics departments. In connection with the updating, each PC-Axis file sent to the server is saved in the www directory of the set of statistics concerned. An archive of the tables published in the PX-Web database is thus created in a simple way. The project has considered whether the user interface created on the side of the static pages should be integrated into the PX-Web application or kept separate from it.

The new updating and timing application is tied in various ways to the system architecture of Statistics Finland. As such, it cannot be copied for other users of PX-Web or deployed to production.

Production of tables and introduction of XML publishing system

PC-Axis tables are produced with PX-Edit, SAS to PC-Axis macro application and SuperSTAR. In the production units, PX-Edit is used especially with SuperSTAR but also for the finishing of PC-Axis files produced with SAS and for the supplementation of metadata. PX-Edit and PX-Tool are the most important database administration and maintenance tools.

The new publishing system in which contents can be automatically converted for various dissemination channels from one electronic original has entered its introduction phase. Full transition to it is likely to take about two years. During the transition, the sets of statistics that do not yet produce XML tables will produce PC-Axis tables that are converted into XML tables for the publishing system. See Appendix diagram.

Introduction of PC-Axis applications throughout the agency

Although as a technology, PX-Axis has already been in use for fifteen years or so, the transfer of the free database service into PX-Web was the first project that required training in the technology and its introduction throughout the agency. Altogether 64 courses were organised in the training programme that lasted from August 2006 to April 2007. Approximately 550 staff-days were spent on them at the level of the whole agency. Apart from instruction in the use of the PC-Axis and PX-Edit programs, training was also provided in standardised tabulation design, principles applying to the use of classifications and optimisation of tables on the terms of a cubic database (PX-Web) and other web-based and multi-channel dissemination methods.

PC-Axis version 2006 and PX-Edit has been installed to all workstations (1,000 workstations) in the agency.

Introduction of PX-Web 2006 version

The 2006 version of the PX-Web server application was introduced into production use on 31 May 2007. The change of the software version was the biggest update since spring 2001 when the PX-Web database service was first opened to customers. Statistics Finland was the first in the world to

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introduce this new server version. Consequently, minor faults were still encountered in the software towards the end of the introduction phase, but these were rectified at commendable speed by SCB. During the first three months of use the new version has proven to be stable and well-functioning.

In connection with the version update all disc directory names were changed to short codes and given names seen by customers (alias names) in three languages. As the physical directory names were changed, a large number of the links between the static pages and the database service also had to be updated. However, most of the links could be updated as a centrally performed mass change because the topic directories of the static pages and the database service are structurally identical.

As all language versions are now in the same directory, the number of directories needing upkeep is lower than before. This has made the maintenance of the service easier. The multiple-language services can now be expanded flexibly. The multiple-language contents can be disseminated both in the old manner in which each language version of a table is a separate px file, and in the new way so that one px file contains metadata in several languages.

Service volumes

In addition to the free StatFin database, the PX-Web server serving external customers also contains 20 charged databases. The server has a total of 5,432 px files which contain a total of approximately 12 Gb of data. The number of tables has fallen from last year because tables have been combined and less relevant contents have also been transferred from the active database to the archive.

The free StatFin service contains 499 px files and the size of the free database is good 400 million data cells. The figure excludes the summary levels that are calculated dynamically in the service. The free of charge database needs about 1.5 Gb disk space

At the moment, the use of the free service accounts for over 80 per cent of all searches from the PX-Web service. (See Appendix table)

PX-Edit

The programmer of the PX-Edit received Statistics Finland's Internal Quality Award for 2006.

The most important development target in the current year has been support for multiple-language files. A beta version of the PX-Edit handling multiple-language files will be presented at the PC-Axis Reference Group Meeting in Helsinki in September 2007.

Distribution of PX-Web server application was assigned to TietoEnator GMR Oy

Since 2002, the PX-Web server application has been sold to user organisations outside Statistics Finland via a distributor. At the beginning of

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2007, TietoEnator GMR Oy bought the business of the previous distributor Dinosoft Oy. A new agreement on the distributorship of PX-Web was made with TietoEnator GMR Oy.

Apart from Statistics Finland, 14 other organisations in Finland (three ministries, five central government agencies, one regional board and five municipality agencies) use the PX-Web server application.

No meeting for PX-Web customers was organised in 2006. Marketing is being intensified with the new distributor, and a meeting for Finnish PX-Web user organisations will be organised again towards the end of 2007.

Questions and development wishes

We would be interested in support for PC-Axis-XML file format in PX-Web. Statistics Finland will soon also be able to produce px tables in XML format in addition to PC-Axis files.

For the purposes of testing, previewing of tables and a user interface for archived tables there would also be a need for a PX-Web version with which individual tables could be opened even if they have not been entered into the directory structure of the PX-Web server.

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Appendix table

PX-Web services - Retrievals and downloaded data cells

Statistics Finland

		StatFin- free of charge		PX-Web total		Free of charge per cent
		Retrievals	Number of cells	Retrievals	Number of cells	
2006	January	..	..	23627	130036426	..
	February	..	..	23500	53934735	..
	March	..	..	31588	47741176	..
	April	..	..	27687	45346034	..
	May	..	..	29797	56596034	..
	June	..	..	21710	65929650	..
	July	..	..	14069	23778067	..
	August	..	..	24296	61179944	..
	September	..	..	22277	40557478	..
	October *)	838	247156	31484	53433472	2,7
	November	13139	9156269	43478	87208387	30,2
	December	4993	2028990	27163	82024709	18,4
2007	January	7365	3109350	41583	42251341	17,7
	February	8593	4391925	35158	54358023	24,4
	March **)	48176	30595661	80222	74749712	60,1
	April	12514	11094206	36661	62403078	34,1
	May	15150	11533626	38668	60970647	39,2
	June **)	29338	38429591	34915	82075075	84,0
	July	29085	17980362	32706	21850062	88,9

Notes

*) October 2006: PX-Web-based free StatFin database established

***) March 2007: Parliamentary election results published in StatFin database

***) June 2007: Five separate free databases integrated into StatFin database

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Appendix diagram

/ XML based dissemination process –
XML and PC-Axis

