

CSO, Ireland – Report on Use of PC-Axis (2007)

Table of Contents

General	2
Use and Intended Use of PC-Axis Products	2
Summary Web Usage Statistics (June 2007)	3
Public Sector Statistics Network	3
New Publication System	4
Main Priorities on Wish List	5
CSO Databank team	5

General

The two key developments since the meeting last year are

- i) the development of a new flexible web publication system leveraging on the save query functionality in PC-Axis.
- ii) the development of an online database hosting facility for other Public Sector organisations

Other ongoing work includes

- i) The further development of new content for the CSO Databank
- ii) Assisting other Public Sector organisations in developing content for their respective databases

Use and Intended Use of PC-Axis Products

Product	Use code	Comment
PC-Axis main module	x	CSO links to SCB site for external users to download software
PX-Web comp.	x	This is used internally and externally (Public Sector organisations only)
PX-Web	x	This is being used internally and externally. We are still using PX-Web 2004.
PX-Make	x	PX-make is being promoted for use in other Public Sector organisations along with PC-Axis and PX Web. It is being used as an integral part of the update mechanism for the SQL database
PX-Edit	x	At present PX-Edit is being used as an advanced version of PX-make. The two key benefits for advanced users are i) more comprehensive validation of .px file ii) validation of .px files
PX-Map	t	Are currently evaluating 2.0
PX-iMap	p	As above
PC-Axis SQL Macro	i	Internally widely using PC-Axis SQL 2004 and on a limited basis PC-Axis SQL 2005. the latter is being used in our web publication systems.
Pxbatch_param.exe		Have now switched to pxsqlbatch.exe
PXBATCH	i	Used as part of automated GESMES file creation from SQL Macro database. The usage of this in CSO is very small if at all. The .bat capability has generally replaced this.
PX-Publ		
PC-Axis SQL Micro		

p= plan to use, t= testing, i=internal use, e=external use, x= internal and external use

Summary Web Usage Statistics (June 2007)

There were approximately 93,000 visits noted on the CSO web site for June 2007.

There were approximately 9,300 extractions from .px files of the main CSO data Dissemination Service and a further 670 extractions from the Department of Environment, Heritage and Local Government database hosted by CSO in June. This does not include direct .px file downloads. These estimates are based on files created in the temp folders of the web servers.

An analysis of the temp folder from June 2007 gives the following table of functionality used in PXWEB.

Function	Environment		CSO Main Site	
	Number	Percent	Number	Percent
asp	571	28.4	7541	25.0
CalcValues	5	0.2	42	0.1
dbase1	0	0.0	2	0.0
dbase2	0	0.0	0	0.0
excel	103	5.1	2277	7.6
graph	565	28.1	7409	24.6
html2	0	0.0	24	0.1
lotus	0	0.0	4	0.0
PivotAuto	17	0.8	154	0.5
PivotManual	136	6.8	3389	11.2
prnmatrix	2	0.1	5	0.0
prntable	4	0.2	79	0.3
SelValues	606	30.1	9163	30.4
text	3	0.1	34	0.1
textcode	1	0.0	8	0.0
Total	2013	100.0	30131	100.0

Public Sector Statistics Network

Previously, CSO has put together a simple tool kit comprising of PX-Make, PC-Axis and PX-Web to allow other Public Sector organisations develop a one stop shop for its statistical needs. This had limited success. One issue that arose was that project champions in interested organisations had difficulty in getting buy in to a new project from the IT side of the house.

In November 2006 CSO started promoting a hosting service for other Public Sector organisations statistical databases. The service has the following characteristics

- a PX-WEB installation on www.cso.ie branded as if it was belonging to the organisation. See <http://www.cso.ie/px/des/database/des/des.asp> as an example.

- All content is published through CSO back end systems, rather than directly from the Public Sector organisations to CSO web servers. Leveraging on CSO production systems ensures stability and consistency in core metadata and data structures over time. There is a significant overhead to adding new codes or changing dimensions in a .px file before publishing it via CSO systems.
- The governance of these hosted databases is that CSO provides them as is and the client organisation is responsible for all content.

At present, CSO has two hosted databases in production.

- i) Department of Environment, Heritage and Local Government (since early 2007)
- ii) Department of Education and Science (since August 2007)

Other databases that are in test phase or have content in development include

- i) Revenue Commissioners (tax collector)
- ii) Sustainable Energy Ireland (promotes and assists development of sustainable energy)
- iii) Department of Health and Children

Department of Environment, Heritage and Local Government are also using PX-Web on their internal Intranet.

The Databank team assign a team member to each hosted database to assist organisations in getting their databases up and running.

This initiative has the title “Public Sector Statistics Network”.

New Publication System

At the end of last year CSO re-engineered its publication system that takes data from its internal SQL database and publishes to the web servers.

The previous system had the following limitations:

- There had to be a direct one to one mapping between folders on the web servers and statistical products defined in the SQL database.
- Within these folders and products there had to be a direct one to one mapping between each data table in the SQL database and .px file published on the web servers.

These limitations meant the possibility for publishing subsets, aggregates or derived data on the fly to selected folders was not possible.

The new system overcomes these limitations through using the .bat functionality within PC-Axis to do any subsetting, derivations or conversion of filetypes on the fly before publishing to the web servers.

This is achieved by placing a Registry of Publication requests between the SQL database and the web servers. Each publication request contains the following:

- i) Publication request ID number
- ii) MaintableID from SQL database
- iii) Web Server to publish to
- iv) Name of Output file to be published
- v) Relevant folder on web server file is to be published in
- vi) Name of .bat file to run to process request
- vii) The following files
 - a. .bat file as created by PC-Axis (includes PXSQLBATCH command)
 - b. .pxsb file to make selection from SQL database
 - c. .pxq file to carry out any subsequent functions on the data prior to publishing.

A scheduled job carries out the following:

- a) checks the Publication Registry against the updated tables in the SQL database to identify what publication requests needs to be executed.
- b) once publication requests to run are identified, the various .bat files are executed and the resulting output files ftp'd to the specified web folder on the web server.

There is a supporting application that allows the Databank team enter, validate and update publication requests in the Publication registry. This is part of the Databank Management Portal mentioned in last years report.

Main Priorities on Wish List

There are many things which we think would be nice but the following would be the higher up the priority list.

1. Partition Timeval variable where it exists into two variables (i.e., Month to year and Month; 1999M01 to 1999 and Jan)
2. ODBC type interface for PX-Edit
3. Saved queries to be enabled for all PC-Axis functionality where possible (i.e., one example is renaming a Timeval variable)
4. Should PX-Edit validation routines for .px file be incorporated into PC-Axis application?

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