



Statistics Finland 

# PX-Edit 3.2

## Introduction

# About PX-Edit

- Developed at Statistics Finland to efficiently **edit and create** statistical tables
- Based on the PC-Axis file format, but not restricted to it
- Main parts:
  - main window (+ system tray)
  - table spreadsheets
  - metadata editor
  - other special purpose windows
- Multilingual, easy to translate

# Design philosophy

- PC-Axis tables
  - must be able to handle all **normal** px files
  - should be able to handle incomplete or even damaged tables
  - is able to repair numerous errors
  - is able to point out numerous other errors
  - changes are reflected immediately in the spreadsheet
  - no artificial table size limitations
- Other source file formats
  - imports data or metadata from different sources including: text files, Excel tables and clipboard data
- **Feasible** new features are being added regularly

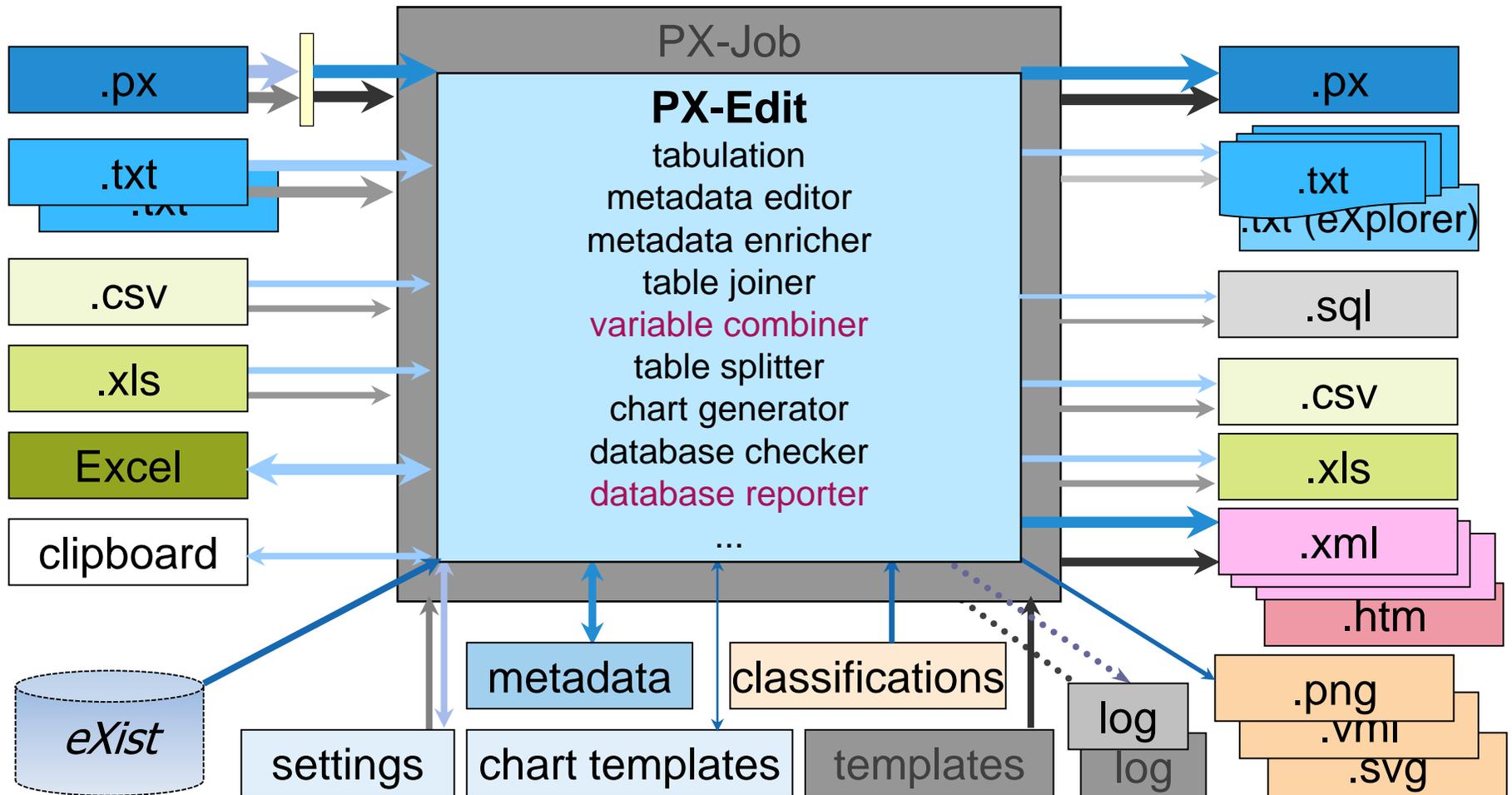
# Terminology

- Variable
  - datacube edge (~ classification)
  - e.g. Country, Gender, Year
- Value
  - a single variable item (~ class)
  - either value texts (compulsory) or value codes (may be missing)
  - e.g. Finland, Sweden; man, woman; 1995, 1996, 1997, ...
- Data
  - numeric data
  - dot codes for missing, concealed, etc. data: ". " – " . . . . . "

# Settings

- Working environment: workstation or LAN
- Organisational settings: `px-edit_main_32.ini`, `xdf_32.ini`
  - mandatory keywords
  - environmental settings
  - user and error logs
  - own keywords
- User settings: `px-edit_32.ini`
  - personal settings

# PX-Edit in a nutshell



# Main window

- Open files
  - *File/Open* [**Ctrl+O**], most recently used list
  - drag and drop support (files or directory folders)
  - read *structural* tables from text files, Excel, .xls, .csv, ...
- Save in different file formats
- Change user settings
  - language, fonts, *Fill item*, **user level** ...
- Special operations
  - table joining, table cloning, database checking, reporting and standardizing, ...
- Help always accessible [**F1**]

# Table window

- Displays the data **visually**
  - range colouring
  - table, variable, value or cell notes
  - data range, variable names, ...
- *File, Edit, Language* and *Window* menus
- Clipboard support
- Multiple tables may be open simultaneously
  - only one table is **active** at a time
- All data is **not** loaded into the spreadsheet!

# Free tabulation

- Change the variable order
  - aggregation is possible, too
- Select variable values
- Sort variable values or codes
  - alphabetically
  - according to the data values
  - free sorting
- All settings can be reset to their original state

# Output formats

- PC-Axis file (.px) [**Ctrl+S**]
- Pure metadata file (.pxk)
- Excel files (.xls, .csv)
- Structural text files (.txt, ...) [**Ctrl+T**]
  - freely adjustable
- CoSSI/XML table formats (.xml)
- *simplePXsql* files (.sql)
- *eXplorer* tables (.txt)
- Export to Excel
- Copy to clipboard [**Ctrl+C**]

# Input data

- PC-Axis files (.px) [**Ctrl+O**]
- Metadata files (.pxk)
- Structural text files (.txt, .dat, .csv, ...)
  - tabulator, semicolon, comma or space delimited
  - arbitrarily large
- Structural Excel files (.xls, .xlsx, .csv)
- Structural tables from Excel worksheet [**Ctrl+E**, **Ctrl+Shift+E**]
- Archives (.zip)
- Structural tables from clipboard
- New empty tables [**Ctrl+N**]

# Structural tables

- A structural table contains the **necessary** data
  - table title
  - language code (not needed)
  - variable names
  - variable values and/or codes
  - data part
  - cell level information possible
- Two different types
  - general table format
  - record mask for fixed-length sequential files

# Syntax checking

- Severe errors
  - mandatory keywords: table will not be opened
  - others: errors will be bypassed
- All found errors will be shown
  - message contains the table and file names
- Some errors may be **repaired**
  - e.g. missing *UNITS*, timestamps and *DECIMALS* problems
  - multiple table opening includes the **Repair all** option

# Values and codes editing

- Manual editing
- Search and replace
- *Value* Tab menus
  - character case changes
  - remove leading characters or dots
  - handle leading codes
  - clipboard support [**Ctrl+C/V**]
  - ...
- Adjust classifications with external classification file (.pxc)
- Code creation

# Metadata editing

- Multilingual keywords
  - single line keywords
  - multiline keywords
- Menu selections
- Date fields
- Special input fields (e.g. *TIMEVAL*)
- Fill empty fields with default keywords [**Ctrl+K**]
- **Import** keywords from another file or open table [**Ctrl+I**]
- *Meta part* Tab for checking the file format

# Data editing

- Cell by cell editing (may also be prohibited)
- Paste from clipboard [**Ctrl+V**]
- Search and replace [**Ctrl+F**]
- Aggregate variables
- Mask or delete values
- Data anonymizing
- *Calculator*
  - make new values
  - change existing values

# Special functions

- Merge two or more tables into a new table [**Ctrl+J**]
- Add a new variable or new values
- Combine variables
- Remove values
  
- Check database
- Standardize database
- Convert database
- Database report
  
- Compare variables from two tables
- Clone tables [**Ctrl+D**, **Ctrl+Shift+D**]
- Split the table into partial tables along one variable

# Multilingualism

- The multilingual tables will be manipulated with the keywords *LANGUAGE* and *LANGUAGES*
- *LANGUAGE* is the main language, the others are extra languages
  - almost all keywords have language based variants in the px file
  - the language code of the extra language must be given after the keyword in brackets (`[fi]`)
- The current language can be changed with the table or metadata editor language menus
- PX-Edit will fill in the **missing** keyword contents for each extra language from the corresponding main language keyword

# There are many ways to add new languages

- Add a new language to a monolingual table with the **Add** function in the *LANGUAGES* input field
  - other metadata input manually
- Join two or more tables with different languages
  - the tables should be uniform
- Import metadata from another table with different languages
  - the import window will then have a separate language menu

# PX-Job: PX-Edit command line interface (batch)

```
PX-Job {job} [in] {out} {err} {copy} {meta} {set} {path} {log} {-} {!}
```

job	job type (default: px)
<b>in</b>	source directory or file ( <b>mandatory</b> )
out	output directory or file (default: source files)
err	directory for erroneous files
copy	directory for source files
meta	metadata file or directory
set	settings file
path	common directory path
log	log file
-	options
!	<b>switches</b>

# Functional changes to previous version

- DOS format output is not supported
  - still available in version 3.1
- Windows 98 is not supported
  - if needed, version 2.4 may be used
- Excel 2.1 output is not available
  - if needed, csv output is sufficient
- Language file syntax has been changed

# PX-Edit history

- 0.9 1999 Basic structure (Kimmo *Linna*)
- 1.0 2003 GUI, memory handling, variable compare
- 1.1 2003 Data anonymizing, structured files, sparse matrices
- 2.0 2003 Batch, StatXDF, keyword fetching, cell notes
- 2.1 2004 Huge tables, *TIMEVAL*, New table, font charsets
- 2.2 2004 Batch templates, classification adjusting, PX-Tool
- 2.3 2005 System Tray, aggregations, formulae, table mask
- 2.4 2006 CoSSI/XML, *DATASYMBOL*\*, Excel comments
- 3.0 2011 Multilingualism, Unicode, database standardization
- 3.1 2013 PX-Job, *simplePXsql*, database conversions
- 3.2 2015 User levels, metadata injection, reporting, variable combining

**New versions are available at:**

[www.stat.fi/tup/pcaxis/lataus\\_tyokalut\\_en.html](http://www.stat.fi/tup/pcaxis/lataus_tyokalut_en.html)