

# Multilingual px-files with PxJob from R

30th international PX-meeting 2021



# Why R ?

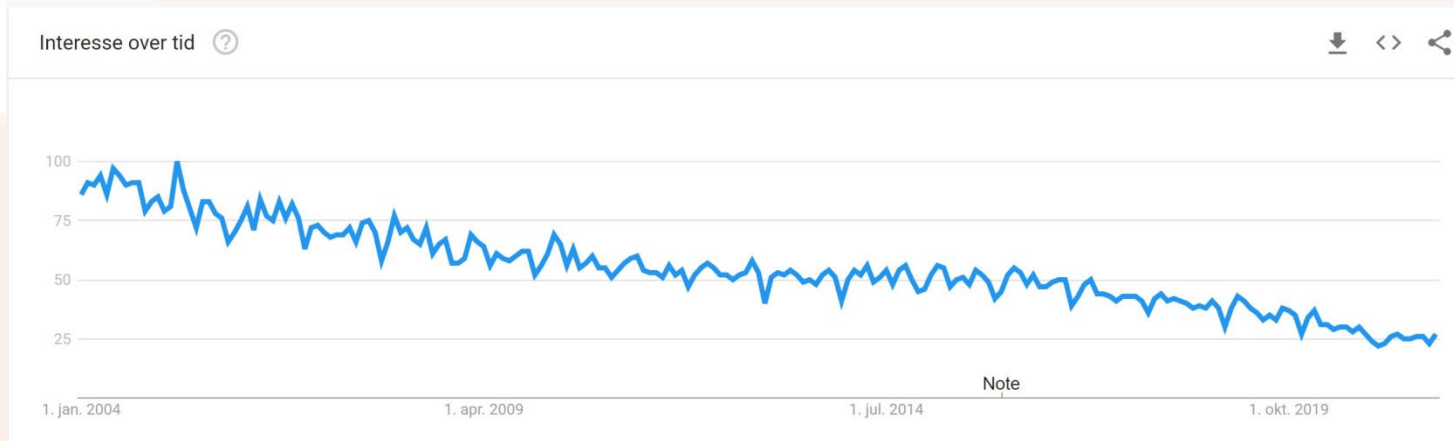
[AwesomeOfficialStatistics](#)

[Google says](#)

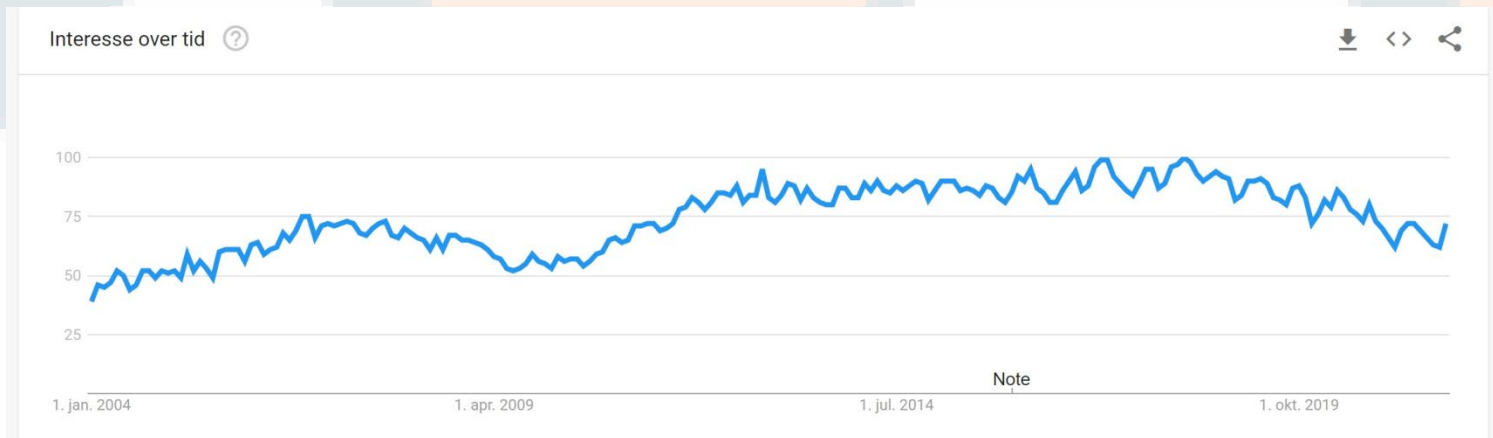
Lars says: [Code is share-able & is being shared](#)

# Tools for statistical production

sas



r





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Countless possibilities!

# Read Statbank tables



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Create  
Statbank  
tables

# Steps

1. Get data
2. Calculations
3. Prepare a Structural file (PXEdit/PXJob)
4. Run PXJob

# What is a multilingual PXEdit Structural file?

time	subject	subject	subject	subject	language	language	language	language	value
2020M11		2 Population	Befolkning	Innuttaasut	0	Danish	Dansk	Dansk	722
2020M11		2 Population	Befolkning	Innuttaasut	1	Greenlandic	Grønlandsk	Kalaallisut	135
2020M11		2 Population	Befolkning	Innuttaasut	2	English	Engelsk	Engelsk	248



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PXEdit is . . .  
**FEEDBACKware**



# with a little help



time	subject.code	subject.en	subject.da	subject.kl	language.code	language.en	language.da	language.kl	value
2020M11	2	Population	Befolkning	Innuttaasut	0	Danish	Dansk	Dansk	722
2020M11	2	Population	Befolkning	Innuttaasut	1	Greenlandic	Grønlandsk	Kalaallisut	135
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# https://github.com/LarsLap/pxjob64Win

GitHub - LarsLap/pxjob64Win: P x +

github.com/LarsLap/pxjob64Win

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Go to file Code

LarsLap Update c42274c on 26 May 14 commits

.proj.user	Now handles mixed utf8 and ANSI	5 months ago
R	Now handles mixed utf8 and ANSI	5 months ago
inst	Update	5 months ago
.Rbuildignore	Initial upload	10 months ago
.Rhistory	Now handles mixed utf8 and ANSI	5 months ago
DESCRIPTION	Initial upload	10 months ago
NAMESPACE	Initial upload	10 months ago
README.md	Update README.md	9 months ago
pxjob64Win.Rproj	Initial upload	10 months ago
sbxsstat01.px	Learning material added	9 months ago
statslog2px.Rmd	Learning material added	9 months ago

README.md

## pxjob64Win

Statistics Finland has created a wonderful, rich and mature tool to create and edit px-files, namely PXedit. This tool also contains methods to do everything programmatically, named PXJob. Check out [https://www.stat.fi/tup/tilastotietokannat/px-tuoteperhe\\_en.html](https://www.stat.fi/tup/tilastotietokannat/px-tuoteperhe_en.html)

This R-package gives access to 64bit pxjob-functionality, from R, with a minimal footprint.

```
#install.packages("devtools")  
  
#library(devtools)  
  
#devtools::install_github("LarsLap/pxjob64Win")  
  
library(pxjob64Win)
```

# Get PXJob in R from GitHub

run:

```
devtools::install_github("LarsLap/pxjob64Win")
```

R will store and find needed PXJob components by:

```
pxjob <-  
c(system.file(package = "pxjob64Win", "PxJob64.exe"))
```

# stats.log

**ActionType** Presentation, SaveAs, Operation

**ActionName** tableViewSorted, tableViewLayout2, tableViewLayout1, sum, subtract, pivotManual, pivotCW, pivotCCW, perPart, informationView, footnoteView, FileTypeRelational, FileTypePX, FileTypeJsonStat, FileTypeJson, FileTypeHtml5Table, FileTypeHtml, FileTypeExcelXDoubleColumn, FileTypeExcelX, FileTypeExcelDoubleColumn, FileTypeExcel, FileTypeCsvWithoutHeadingAndTabulator, FileTypeCsvWithHeadingAndTabulator, FileTypeCsvWithHeadingAndSpace, FileTypeCsvWithHeadingAndSemiColon, FileTypeCsvWithHeadingAndComma, FileTypeChartPng, FileTypeChartJpeg, divide, deleteVariable, deleteValue, chartViewRadar, chartViewPopulationPyramid, chartViewPoint, chartViewPie, chartViewLine, chartViewColumnStacked100, chartViewColumnStacked, chartViewColumnLine, chartViewColumn, chartViewBarStacked100, chartViewBarStacked, chartViewBar, chartViewAreaStacked100, chartViewAreaStacked, chartViewArea, changeValueOrder, changeTextCodePresentation



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## Writing multilingual px-files with R

```
#devtools::install_github("LarsLap/pxjob64Win")
```

will be moved to StatisticsGreenland repository  
on Github

# One more example

## Greenland, sex- and agestructure by time, content and area

	Total	Kommune Kujalleq	Kommuneqarfik Sermersooq	Qeqqata Kommunia	Kommune Qeqertalik	Avannaata Kommunia	Outside municipalities
2021							
Mean age	36.05	38.10	35.27	36.30	37.01	35.67	48.75
Median age	34.5	36.5	34.5	34.5	35.5	34.5	51.5
Proportion under 18 years	24	24	24	25	25	26	..
Proportion 18-66 year olds	68	66	71	67	66	67	..
Proportion 67+ year olds	7	11	5	8	9	7	..
Dependency ratio	46.23	51.93	41.62	49.05	51.29	48.50	..
Population	56,421	6,454	23,462	9,305	6,312	10,820	68
Males pr female	1.12	1.11	1.12	1.12	1.09	1.12	3.86
Female ratio	47	47	47	47	48	47	21
Male ratio	53	53	53	53	52	53	79

# One more example

## Step 1

1. Get data from bank.stat.gl
2. Calculate
3. Prepare a Structural file (PXEdit/PXJob)
4. Write metadata to Excel

## Translation of Excel-files

## Step 2

1. Run PXJob
2. Read Structural file
3. Read metadata from excel
4. Run Do\_pxR



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Ppt

statlog2px.html

ReadStatBanks.html

will be mailed to [PC-Axis@scb.se](mailto:PC-Axis@scb.se) today