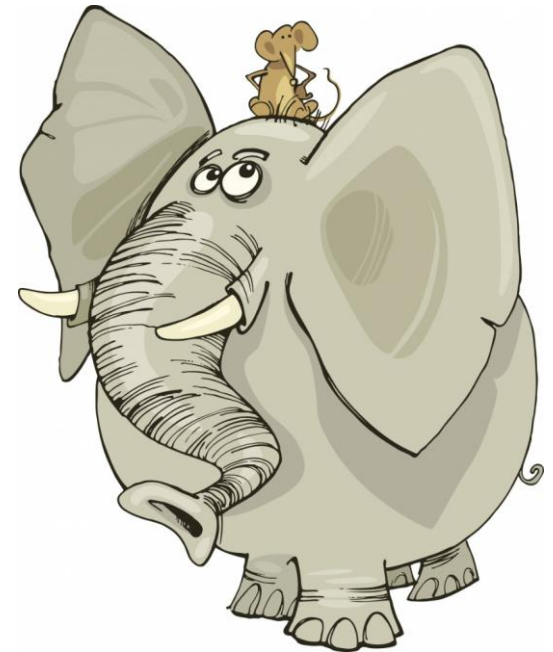
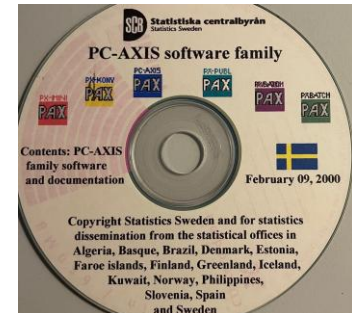
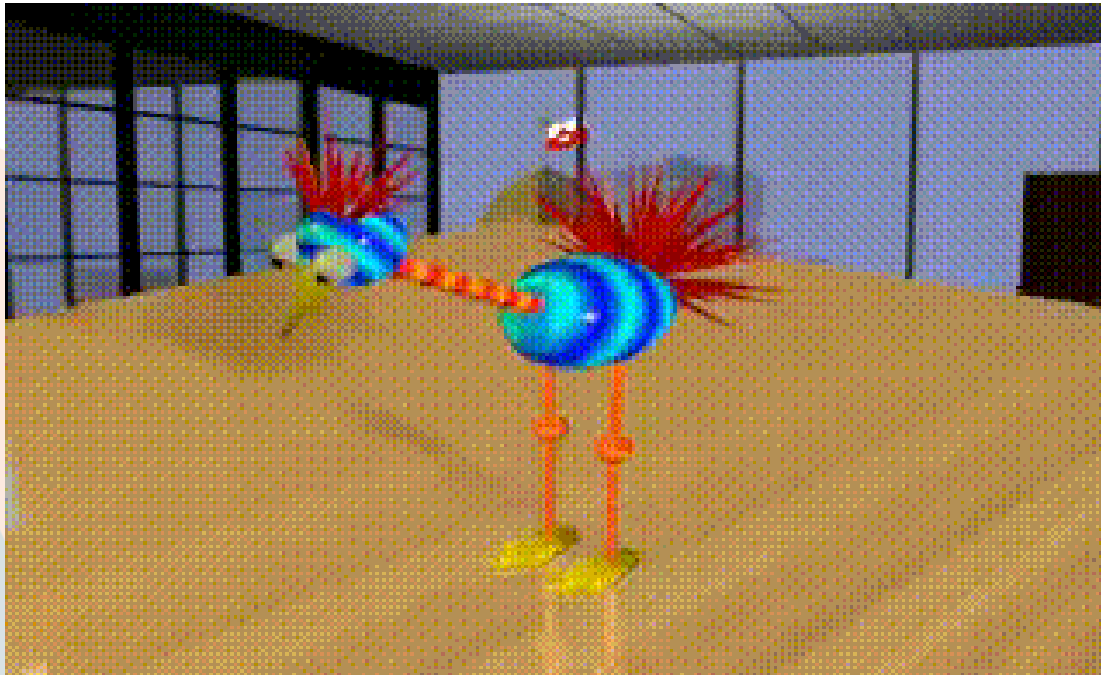


pxmake

on CRAN 2025



px since 1993 ❤️ forever



Skopje 2024

2 questions:

On CRAN ?

Can pxmake do classifications?

CRAN release: January 2025

pxmake



CRAN 0.18.0 R-CMD-check passing codecov 96% mentioned in awesome downloads 682/month

Overview

'pxmake' is an R package for creating and modifying PX-files.

With pxmake you can:

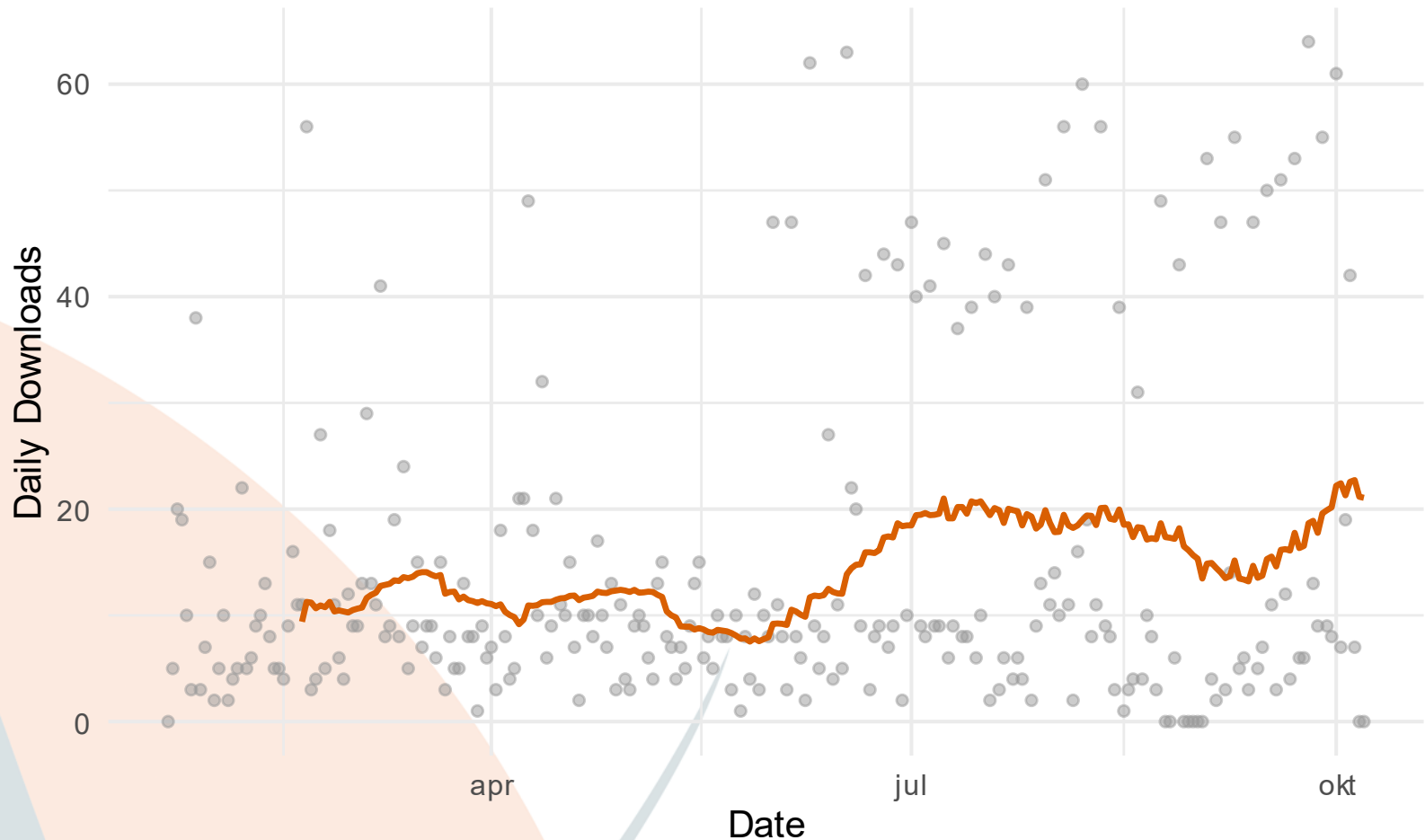
- Import a PX-file, modify it, and save it as a new PX-file.
- Modify all metadata keywords in a PX-file.
- Do complex modifications to a PX-file, like adding total levels to a variable.
- Save a PX-file as an Excel workbook.

<https://statisticsgreenland.github.io/>

CRAN release: 2025-01-22 (version 14.2)

Downloads of 'pxmake'

With 30-day moving average (orange), total of 3760 downloads



Source: cranlogs.r-pkg.org

Additional Learning Material

<https://statisticsgreenland.github.io/>

<https://thranholm.quarto.pub/px-and-r>

Question – Is there room for a PXTools/School
/PXUniversity



PxTools

Px products for dissemination of statistical data

 26 followers

 <https://www.pxtools.net/>



pxmake — The Cheatsheet

Make, read, edit, validate and write PX-files in R



Install & load

```
install.packages("pxmake")
library(pxmake)
```

Quick start

```
x <- px(input = NULL, data = df)
```

No metadata?

`px()` add minimal valid defaults. Then set keywords

- Minimal keywords are created when missing; set more via helpers (title, units, codes, etc.)

px() (constructor)

```
px(input = NULL, data = NULL, validate = TRUE)
```

- input: path/URL to PX/Excel, or NULL

- data: tidy data.frame (one column per variable + one value/measure column)

px_save()

Writes based on file extension: .px, .xlsx, .R.

```
px_save(x, "table.xlsx", save_data = TRUE, data_path = NULL)
```

- .R: reproducible script that reconstructs the px object.

- Use `data_path` to reference external data files (e.g. .rds/.parquet).

Read / write

- Read PX → `x <- px("file.px")`

- Read Excel → `x <- px("meta.xlsx")`

- Save PX → `px_save(x, "table.px")`

- Save Excel → `px_save(x, "table.xlsx")`

- Save R → `px_save(x, "table.R")`

Alternative input (pxweb saved query)

You can load a PX object directly from a saved query in a pxweb database (e.g. bank.stat.gl).

Append .px to the saved query URL:

```
x <- px("https://bank.stat.gl/sq/5058908a-cc8a-44aa-bee7-7e2827948459.px")
```

Note: the .px at the end is required, if the saved query is not already defined as PX.

Full PX-file

A saved query is typically just a subset of a PX-file.

Fetch the entire file by adjusting the API URL:

```
https://bank.stat.gl/api/v1/en/Greenland/BE/BE01/BE0120/BEXSTA.px
```

```
https://bank.stat.gl/Resources/PX/Databases/Greenland/BE/BE01/BE0120/BEXSTA.px
```

Note: Server must serve .px with MIME text/x-pcaxis (e.g. IIS).

Metadata helpers

```
px_title(), px_subject(),
px_stub()/px_heading(), px_codes(),
px_values(), px_units(), px_matrix(),
px_contents(), px_language(),
px_notes()...
```

Data helpers

```
px_add_totals(), px_elimination(),
px_map(), px_domain(), px_pivot(),
px_micro()...
```

Validation

`px_validate(x)` — run checks. Many setters accept `validate=`.

Multilingual

```
x |> px_languages(c("en", "da", "kl")) |>
px_language("en")
```

Large datasets (Parquet)

```
df <- arrow::read_parquet("data.parquet")
```

Keep PX metadata in x and export with `px_save()` (use `data_path`).

From tidy microdata → tidy table data

Summarise micro rows to tidy table counts with `dplyr`:

```
library(dplyr)
df_tbl1 <- micro_df |>
count(across(everything()), name = "value")
```

Then build the PX object:

```
x <- px(data = df_tbl1) |>
px_stub("var1", "var2") |>
px_heading("time")
```

Reproducibility

`px_save(x, "table.R")` writes an R script that reconstructs x.

End-to-end

```
df <- tibble::tibble(sex=c("F", "M"),
time=c("2024", "2025"), value=c(42, 43))
x <- px(data = df) |> px_title("Population
by sex and year") |> px_stub("sex") |>
px_heading("time")
px_validate(x)
px_save(x, "population.px")
px_save(x, "population.xlsx")
px_save(x, "population.R")
```

Tips

- Column names become variable names.
- Use `px_value_order()` for level order.
- For large tables, skip validation in setters.

Further reading (Community Book)

• Building PX-files from scratch • Handling time • Codes & labels • Multilingual • Validation • Large PX-files
See: <https://thranholm.quarto.pub/px-and-r>

Help

?px — constructor overview

?px_save — export & options

?px_add_totals, ?px_elimination, ... — function help

help(package = "pxmake") — package index

Docs

CRAN: ?px, ?px_save • GitHub:
StatisticsGreenland/pxmake



CRAN (pxmake)



GitHub repo



Community Book

Version 1.0 — Oct 2025

my 15 minutes playlist

Install

```
library(pxmake)  
packageVersion("pxmake")
```

read & write

```
px_object <- px(df)  
empty_px_object <- px()  
px_object <- px("*px")  
  – full px anywhere PxWeb1  
px_object <- px("saved_query")  
px_object <- px("*xlsx") #  
px_save(px("saved_query"), "saved_query.xlsx")  
px_object <- px("*R")
```

```
px_object <- px("*xlsx") #  
px_save(px("saved_query"), "saved_query.xlsx")
```

x <-

```
px("https://pxdata.stat.fi/PxWeb/sq/ec52245b-  
ed73-4fa2-b7af-3bf711834c4c.px")
```

Save x to .R

Find px_source

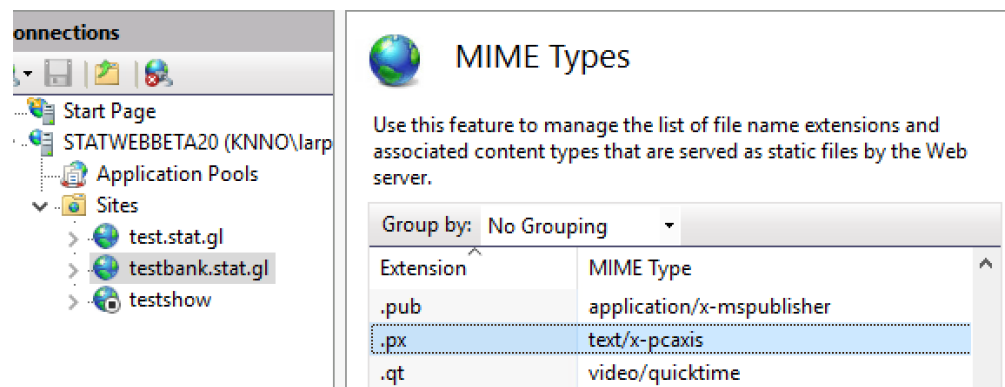
Change

Add to x

```
px_save(x, "test.px")  
z_data <- px_data(z) %>%  
  mutate(figures_=1)
```

```
z <- x %>% px_data(z_data)
```


Special IIS settings on stat.gl



MIME type px:

To Get Full px-file(s)

Error404 – file not found:

Friendly shortcut &
language selection

