

Package: pgacmdr (via r-universe)

October 20, 2026

Title Interactive Shiny Application for Population Genetics

Version 0.1.0

BugReports <https://github.com/KadNaf/PGA-cmdr/issues>

URL <https://github.com/KadNaf/PGA-cmdr>

Description PGA-cmdr is an interactive 'shiny' application for population genetics analyses of multilocus individual genotype data from codominant markers (microsatellites, allozymes, SNPs). It covers data import and formatting, allele frequencies and missing data, observed and expected heterozygosity, F-statistics (FIS, FST, FIT) following Weir and Cockerham (1984) <[doi:10.1111/j.1558-5646.1984.tb05657.x](https://doi.org/10.1111/j.1558-5646.1984.tb05657.x)>, and gene diversities (HS, HT) following Nei and Chesser (1983) <[doi:10.1111/j.1469-1809.1983.tb00993.x](https://doi.org/10.1111/j.1469-1809.1983.tb00993.x)>. Analyses include local and global panmixia tests, population subdivision with a G-based test of genotypic differentiation, pairwise linkage disequilibrium tests, null allele frequency estimation with the ENA correction of Chapuis and Estoup (2007) <[doi:10.1093/molbev/msl191](https://doi.org/10.1093/molbev/msl191)>, and isolation by distance using the regression of Rousset (1997) <[doi:10.1093/genetics/145.4.1219](https://doi.org/10.1093/genetics/145.4.1219)> and a Mantel test. Confidence intervals are obtained by bootstrap over individuals, sub-samples or loci, and p-values by Monte Carlo permutation, computed in parallel in C++ via 'Rcpp' and 'OpenMP'. All computations run locally and no data leave the user's computer.

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Encoding UTF-8

Depends R (>= 4.1.0)

LazyData false

Roxygen list(markdown = TRUE)

RoxygenNote 7.3.3

Imports shiny (>= 1.7.0), bslib (>= 0.9.0), shinydashboard, shinyWidgets, shinyalert, dplyr, tidyr, kableExtra, knitr, Rcpp

($\geq$ 1.0.0), tibble, waiter, parallel, stats, utils, graphics,
duckdb, DBI, jsonlite, htmltools, magrittr, zip

LinkingTo Rcpp

VignetteBuilder knitr

SystemRequirements C++17, OpenMP

Suggests testthat ($\geq$ 3.0.0), digest, golem ($\geq$ 0.4.0), knitr,
rmarkdown, hierfstat

Config/testthat/edition 3

Config/pak/sysreqs cmake libfontconfig1-dev libfreetype6-dev libfribidi-dev make libharfbuzz-
dev libicu-dev libpng-dev libuv1-dev libxml2-dev xz-utils zlib1g-dev

Repository <https://kadnaf.r-universe.dev>

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RemoteUrl <https://github.com/KadNaf/PGA-cmdr>

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app_server	<i>Application Server</i>
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Description

Application Server

Usage

app_server(input, output, session)

Arguments

input, output, session
Shiny server arguments.

`app_ui`*Application UI*

Description

Application UI

Usage

```
app_ui()
```

Value

A `shinydashboard::dashboardPage` object.

`run_app`*Run the PGA-cmdr application*

Description

Run the PGA-cmdr application

Usage

```
run_app(...)
```

Arguments

... Arguments passed to [shinyApp](#).

Value

A `shiny.appobj` (invisibly).

Examples

```
## Not run:
pgacmdr::run_app()

## End(Not run)
```

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