Style guide for rB3

# Reference list

* <https://csgillespie.github.io/efficientR/>
* <https://adv-r.hadley.nz/>
* <https://r4ds.had.co.nz/>
* <https://google.github.io/styleguide/Rguide.html>
* <http://web.stanford.edu/class/cs109l/unrestricted/resources/google-style.html>

# Public function vs private function

* Distinguish private functions (those intended to be called by the users) from private functions (back end functions)
* private functions should start from “.”

.SYS\_destruct\_obj

* add following to the NAMESPACE

exportPattern("^[^\\.]")

* https://stat.ethz.ch/pipermail/r-help/2006-June/107008.html

# Function naming

* All lower case (unless names)
* Separate words by underscore “\_”
* Never use “.”
* Use prefix

Prefixes

|  |  |  |
| --- | --- | --- |
| **Prefix** | **Definition** | **Example** |
| FIO | file I/O | FIO\_read\_csv  FIO\_write\_LA |
| PLT | plotting functions | PLT\_gg |
| SYS | system functions | .SYS\_destruct\_obj  .SYS\_restruct\_obj |
| WRA | data wrangling functions |  |
| FLT | data filtering (out / in) and replacement functions |  |
| GUI? APP? SHINY? | Shiny app functions | APP\_rB3 |
| LKE | Lake specific functions |  |
| RIV | River specific functions |  |
| ATM | Atmosphere specific functions |  |
| ECO | Ecology specific functions | ECO\_metabolism |
|  |  |  |

# Variable naming

# Object types

Use S3 object, and use data.table as the standard class type. To check the data types, execute:

class(myData)

For structured rB3 object, declare using “data.type” attributes

attr(myStructuredData, “data.type”) = “rB3obj”

Check object by:

(sum(attr(a,"data.type") == "rB3obj"))