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| attach {base} | R Documentation |

**Attach Set of R Objects to Search Path**

**Description**

The database is attached to the **R** search path. This means that the database is searched by **R** when evaluating a variable, so objects in the database can be accessed by simply giving their names.

**Usage**

attach(what, pos = 2L, name = deparse(substitute(what)),

warn.conflicts = TRUE)

**Arguments**

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| what | ‘database’. This can be a data.frame or a list or a **R** data file created  with [save](http://127.0.0.1:14695/library/base/help/save) or NULL or an environment. See also ‘Details’. |
| pos | integer specifying position in [search](http://127.0.0.1:14695/library/base/help/search)() where to attach. |
| name | name to use for the attached database. Names starting with package:  are reserved for [library](http://127.0.0.1:14695/library/base/help/library). |
| warn.conflicts | logical. If TRUE, warnings are printed about [conflicts](http://127.0.0.1:14695/library/base/help/conflicts) from attaching the  database, unless that database contains an object .conflicts.OK. A  conflict is a function masking a function, or a non-function masking a  non-function. |

**Details**

When evaluating a variable or function name **R** searches for that name in the databases listed by [search](http://127.0.0.1:14695/library/base/help/search). The first name of the appropriate type is used.

By attaching a data frame (or list) to the search path it is possible to refer to the variables in the data frame by their names alone, rather than as components of the data frame (e.g., in the example below, height rather than women$height).

By default the database is attached in position 2 in the search path, immediately after the user's workspace and before all previously attached packages and previously attached databases. This can be altered to attach later in the search path with the pos option, but you cannot attach at pos = 1.

The database is not actually attached. Rather, a new environment is created on the search path and the elements of a list (including columns of a data frame) or objects in a save file or an environment are *copied* into the new environment. If you use [<<-](http://127.0.0.1:14695/library/base/help/%3C%3C-) or [assign](http://127.0.0.1:14695/library/base/help/assign) to assign to an attached database, you only alter the attached copy, not the original object. (Normal assignment will place a modified version in the user's workspace: see the examples.) For this reason attach can lead to confusion.

One useful ‘trick’ is to use what = NULL (or equivalently a length-zero list) to create a new environment on the search path into which objects can be assigned by [assign](http://127.0.0.1:14695/library/base/help/assign) or [load](http://127.0.0.1:14695/library/base/help/load) or [sys.source](http://127.0.0.1:14695/library/base/help/sys.source).

Names starting "package:" are reserved for [library](http://127.0.0.1:14695/library/base/help/library) and should not be used by end users. Attached files are by default given the name file:*what*. The name argument given for the attached environment will be used by [search](http://127.0.0.1:14695/library/base/help/search) and can be used as the argument to [as.environment](http://127.0.0.1:14695/library/base/help/as.environment).

There are hooks to attach user-defined table objects of class "UserDefinedDatabase", supported by the Omegahat package **RObjectTables**. See <http://www.omegahat.net/RObjectTables/>.

**Value**

The [environment](http://127.0.0.1:14695/library/base/help/environment) is returned invisibly with a "name" attribute.

**Good practice**

attach has the side effect of altering the search path and this can easily lead to the wrong object of a particular name being found. People do often forget to [detach](http://127.0.0.1:14695/library/base/help/detach) databases.

In interactive use, [with](http://127.0.0.1:14695/library/base/help/with) is usually preferable to the use of attach/detach, unless what is a [save](http://127.0.0.1:14695/library/base/help/save)()-produced file in which case attach() is a (safety) wrapper for [load](http://127.0.0.1:14695/library/base/help/load)().

In programming, functions should not change the search path unless that is their purpose. Often [with](http://127.0.0.1:14695/library/base/help/with) can be used within a function. If not, good practice is to

* Always use a distinctive name argument, and
* To immediately follow the attach call by an [on.exit](http://127.0.0.1:14695/library/base/help/on.exit) call to detach using the distinctive name.

This ensures that the search path is left unchanged even if the function is interrupted or if code after the attach call changes the search path.

**References**

Becker, R. A., Chambers, J. M. and Wilks, A. R. (1988) *The New S Language*. Wadsworth & Brooks/Cole.

**See Also**

[library](http://127.0.0.1:14695/library/base/help/library), [detach](http://127.0.0.1:14695/library/base/help/detach), [search](http://127.0.0.1:14695/library/base/help/search), [objects](http://127.0.0.1:14695/library/base/help/objects), [environment](http://127.0.0.1:14695/library/base/help/environment), [with](http://127.0.0.1:14695/library/base/help/with).

**Examples**

require(utils)

summary(women$height) # refers to variable 'height' in the data frame

attach(women)

summary(height) # The same variable now available by name

height <- height\*2.54 # Don't do this. It creates a new variable

# in the user's workspace

find("height")

summary(height) # The new variable in the workspace

rm(height)

summary(height) # The original variable.

height <<- height\*25.4 # Change the copy in the attached environment

find("height")

summary(height) # The changed copy

detach("women")

summary(women$height) # unchanged

## Not run: ## create an environment on the search path and populate it

sys.source("myfuns.R", envir = attach(NULL, name = "myfuns"))

## End(Not run)