

# Eat your hashes! Hash comes to R.

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1. Open Data ( <http://www.opendatagroup.com> )

Perl has hashes. Python has dictionaries. Hash tables and associative arrays are one of the most common and indispensable tools. A very basic programming task is to "look up" or "map" a key to a value. In fact, there are projects whose sole raison d'être is making the hash as fast and as efficient as possible.

R actually has two equivalents to hashes, both lacking. The first is R's named vectors and lists. These work well enough for small lists, but because they are not a hash table, they become intolerably slow for longer lists. The second equivalent is R environments. The structure of the environment is a hash table; look-ups do not appreciably degrade with size. But R environments are not full featured and suffer from a weird syntax that is not, well, R-like.

The hash package uses R environments and alleviates these drawbacks. The feature set rivals that of Perl and Python and the interface and great effort has been made such that all behaviors mimic those of R::Core. This talk introduces that hashes, the implementation and features of the R hash package.