

Package ‘cdb’

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Type Package

Title Reading and Writing Constant DataBases

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Description A constant database is a data structure created by Daniel J. Bernstein in his cdb package. Its format consists on a sequence of (key,value)-pairs. This R package replicates the basic utilities for reading (cdbget) and writing (cddbump) constant databases.

Depends bitops

Suggests methods

URL <http://cdb.r-forge.r-project.org/>

License GPL (>= 2)

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Description

A constant database is a data structure created by Daniel J. Bernstein in his cdb package. Its format consists on a sequence of (key,value)-pairs. This R package emulates the basic cdb utilities: read (cdbget) and write (cbddump).

Details

Package: cdb
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Function `read.cdb` reads a cdb file and returns a data frame with all the keys and the values of the constant database.

Function `write.cdb` exports a data frame with two columns to a text file, using the record format proposed by D. J. Bernstein.

Author(s)

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References

Daniel J. Bernstein cdb <http://cr.yp.to/cdb.html>

Michael Tokarev (2012) TinyCDB - a Constant DataBase <http://www.corpit.ru/mjt/tinycdb.html>

Examples

```
## Not run: read.cdb("example.cdb")  
## Not run: write.cdb(x, filename="Base.txt", type="txt")
```

read.cdb	<i>Reads a cdb file</i>
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Description

This function reads a cdb file (or its text version) and creates a data frame with the keys and values.

Usage

```
read.cdb(file, type=c("cdb","txt"))
```

Arguments

file	The name of the cdb file to read.
type	A character string describing the type of file. Value cdb reads a file with the native format; txt needs a text record format. See the Details section.

Details

This function reads data files in the cdb format or in its text version. The format is described in the documents of the reference section.

It reads all the keys and values and transforms them as a data frame with two columns.

Value

An object of the class `data.frame` with two columns: The first one collects the keys and the second one shows the values.

Author(s)

Emilio Torres Manzanera

References

D. J. Bernstein The cdbmake and cdbdump programs <http://cr.yip.to/cdb/cdbmake.html>

Yusuke Shinyama (2003) Constant Database (cdb) Internals <http://www.unixuser.org/~euske/doc/cdbinternals/>

Michael Tokarev (2012) TinyCDB - a Constant DataBase <http://www.corpit.ru/mjt/tinycdb.html>

See Also

[write.cdb](#)

Examples

```

packages <- rownames(as.data.frame(installed.packages()))
set.seed(123)
a <- data.frame(key=sample(packages, 10, replace = TRUE),
                 value=sample(packages, 10, replace = TRUE))
write.cdb(a, "Base.txt", type="txt")

b <- read.cdb("Base.txt", type="txt")
b

c <- read.cdb(system.file("extdata", "example.cdb",
                          package = "cdb"))
c

```

write.cdb

Writes a data frame to a text file

Description

This function writes a two column data frame to a text file using the cdb record format.

Usage

```
write.cdb(x, file, type=c("cdb","txt"))
```

Arguments

x	An object that can be coerced as a data frame with two columns.
file	The name of the cdb file to write.
type	A character string describing the type of file. Value cdb does nothing; txt writes a text file using the cdb record format. See the Details section.

Details

This function writes a data frame to a file using the text version of the cdb format. The data frame (or the object) must have only two columns: The first one contains the keys and the second column are the values.

The text version of the constant database is a file with several lines with the form of +klen,vlen:key->value followed by a newline. klen and vlen are the number of bytes in key and in value, respectively. The end of data is indicated by an extra newline.

Value

A text file with all the keys and values.

Note

This text file can be transformed into a native cdb format using external programs. You may use an external program (for instance, TinyCDB) to create a cdb version from the text file (see references for details). In future versions, a native creation of cdb files will be developed.

Author(s)

Emilio Torres Manzanera

References

D. J. Bernstein The cdbmake and cdbdump programs <http://cr.yp.to/cdb/cdbmake.html>

Michael Tokarev (2012) TinyCDB - a Constant DataBase <http://www.corpit.ru/mjt/tinycdb.html>

See Also

[read.cdb](#)

Examples

```
set.seed(123)
a <- data.frame(key=rnorm(10),value=rnorm(10))
write.cdb(a, "Base.txt", type="txt")

# Create a cdb base using an external program.
# For instance, using the TinyCDB program:
## Not run: system("cdb -c Base.cdb Base.txt")
```

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