Package 'read.dbc'

October 14, 2022

Title Read Data Stored in DBC (Compressed DBF) Files

Description Functions for reading and decompressing the DBC (compressed DBF) files. Please note that this is the file format used by the Brazilian Ministry of Health (DATASUS) to publish healthcare datasets. It is not related to the FoxPro or CANdb DBC file formats.

Version 1.0.5

Depends R (>= 3.3.0)

Imports foreign

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URL https://github.com/danicat/read.dbc

BugReports https://github.com/danicat/read.dbc/issues

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R topics documented:

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dbc2dbf	*Decompress a DBC (compressed DBF) file*

Description

This function allows you decompress a DBC file into its DBF counterpart. Please note that this is the file format used by the Brazilian Ministry of Health (DATASUS), and it is not related to the FoxPro or CANdb DBC file formats.

Usage

```
dbc2dbf(input.file, output.file)
```

Arguments

input.file	The name of the DBC file (including extension)
output.file	The output file name (including extension)

Details

DBC is the extension for compressed DBF files (from the 'XBASE' family of databases). This is a proprietary file format used by the brazilian government to make available public healthcare datasets (by it's agency called DATASUS).

It uses internally the PKWare's Data Compression Library (DCL) "implode" compression algorithm. When decompressed, it becomes a regular DBF file.

Value

Return TRUE if succeded, FALSE otherwise.

Author(s)

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Source

The internal C code for dbc2dbf is based on blast decompressor and blast-dbf (see *References*).

References

The PKWare ZIP file format documentation (contains the "implode" algorithm specification) available at https://support.pkware.com/display/PKZIP/APPNOTE, current version https://pkware.cachefly.net/webdocs/casestudies/APPNOTE.TXT.

blast source code in C: https://github.com/madler/zlib/tree/master/contrib/blast

blast-dbf, DBC to DBF command-line decompression tool: https://github.com/eaglebh/blast-dbf

See Also

read.dbc

Examples

```
# Input file name
in.f  <- system.file("files/sids.dbc", package = "read.dbc")

# Output file name
out.f <- tempfile(fileext = ".dbc")

# The call return logi = TRUE on success
if( dbc2dbf(input.file = in.f, output.file = out.f) ) {
    print("File decompressed!")
    file.remove(out.f)
}
```

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read.dbc   *Read Data Stored in DBC (compressed DBF) Files*

Description

This function allows you to read a DBC (compressed DBF) file into a data frame. Please note that this is the file format used by the Brazilian Ministry of Health (DATASUS), and it is not related to the FoxPro or CANdb DBC file formats.

Usage

```
read.dbc(file, ...)
```

Arguments

file	The name of the DBC file (including extension)
...	Further arguments to be passed to read.dbf

Details

DBC is the extension for compressed DBF files (from the 'XBASE' family of databases). This is a proprietary file format used by the brazilian government to make available public healthcare datasets (by it's agency called DATASUS). read.dbc relies on the dbc2dbf function to decompress the DBC into a temporary DBF file.

After decompressing, it reads the temporary DBF file into a data.frame using read.dbf from the foreign package.

Value

A data.frame of the data from the DBC file.

Note

DATASUS is the name of the Department of Informatics of the Brazilian Health System and is resposible for publishing public healthcare data. Besides the DATASUS, the Brazilian National Agency for Supplementary Health (ANS) also uses this file format for its public data.

This function was tested using files from both DATASUS and ANS to ensure compliance with the format, and hence ensure its usability by researchers.

As a final note, neither this project, nor its author, has any association with the brazilian government.

Author(s)

Daniela Petruzalek, <daniela.petruzalek@gmail.com>

See Also

[dbc2dbf](dbc2dbf)

Examples

```
# The 'sids.dbc' file is the compressed version of 'sids.dbf' from the "foreign" package.
x <- read.dbc(system.file("files/sids.dbc", package="read.dbc"))
str(x)
summary(x)

# This is a small subset of U.S. NOAA storm database.
storm <- read.dbc(system.file("files/storm.dbc", package="read.dbc"))
head(x)
str(x)


## Don't run!
## The following code will download data from the "Declarations of Death" database for
## the Brazilian state of Parana, year 2013. Source: DATASUS / Brazilian Ministry of Health
url <- "ftp://ftp.datasus.gov.br/dissemin/publicos/SIM/CID10/DORES/DOPR2013.dbc"
download.file(url, destfile = "DOPR2013.dbc")
dopr <- read.dbc("DOPR2013.dbc")
head(dopr)
str(dopr)
```

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