

Package ‘HARr’

May 7, 2026

Type Package

Title 'HAR' ('GEMPACK') File Read/Write Utility

Version 1.1.0

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Description HAR files are generated and consumed by 'GEMPACK' applications. This package reads/writes 'HAR' files (and 'SL4' files) directly using basic R functions.

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Encoding UTF-8

RoxygenNote 7.3.2

Imports stringi

NeedsCompilation no

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Repository CRAN

Date/Publication 2025-08-27 12:00:29 UTC

Contents

read_har	1
read_SL4	2
write_har	3

Index	4
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read_har	<i>Read a GEMPACK HAR file into R</i>
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Description

Reads in a GEMPACK HAR file and returns its representation a list. Currently can only process integer headers, real full headers and character headers

Usage

```
read_har(
  con,
  useCoefficientsAsNames = FALSE,
  toLowerCase = TRUE,
  headersToRead = NULL
)
```

Arguments

`con` Connection or path to HAR file

`useCoefficientsAsNames` If a coefficient name is present in the header, use that instead of the four-letter header

`toLowerCase = TRUE` Turn all strings to lower case

`headersToRead = NULL` A vector of header names to read in

Value

A list of headers

Examples

```
f1 <- system.file("extdata/example1.har", package="HARr")
read_har(f1)
```

read_SL4	<i>Read an SL4 solution file</i>
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Description

This function reads SL4 solution files into a list

Usage

```
read_SL4(filename, toLowerCase = TRUE)
```

Arguments

`filename` Path to SL4 file

`toLowerCase` Logical: should all text from the SL4 file be turned to lowercase

Value

A list of variables

Examples

```
f1 <- system.file("extdata/test.sl4", package="HARr")
read_SL4(f1)
```

write_har

Write an R list to GEMPACK HAR

Description

This function writes a HAR file based on a list. If a list element contains attribute "description," then it is used to define the long header name

Some warnings: (1) you cannot have NA's in a HAR file, (2) empty strings are not allowed, (3) some programs (e.g., GEMPACK models) read chunks of data no longer than 1e4 bytes (set maxSize = 1e4), (4) all dimensions in arrays must have names (see example)

Usage

```
write_har(data, filename, maxSize = 10000)
```

Arguments

data	A list
filename	Path to the file to be created
maxSize	Maximum size of data chunk in real array, default of 10,000

Value

No return value, called for side effects

Examples

```
myList = list(TEST = c('Test'))
attr(myList$TEST, 'description') = "This is the long header name"
write_har(myList, 'harfile.har')
file.remove('harfile.har')
```

Index

read_har, 1
read_SL4, 2
write_har, 3