Package ‘labelVector’
February 17, 2020

Title  Label Attributes for Atomic Vectors
Version  0.1.1
Description  Labels are a common construct in statistical software providing a
human readable description of a variable. While variable names are succinct,
quick to type, and follow a language's naming conventions, labels may
be more illustrative and may use plain text and spaces. R does not provide
native support for labels. Some packages, however, have made this feature
available. Most notably, the 'Hmisc' package provides labelling methods
for a number of different object. Due to design decisions, these methods
are not all exported, and so are unavailable for use in package development.
The 'labelVector' package supports labels for atomic vectors in a light-weight
design that is suitable for use in other packages.

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extract_labelled  Extract or Replace Parts of Labelled Vectors

Description

Extraction and replacement methods for labelled vectors.

Usage

```r
## S3 method for class 'labelled'
x[i, ...]
## S3 replacement method for class 'labelled'
x[i, ...] <- value
```

Arguments

- `x`: An atomic vector inheriting the labelled class.
- `i`: The elements to extract.
- `...`: Arguments to pass to other methods.
- `value`: Typically a vector of similar class of length `i`.

See Also

- `Extract` 

Examples

```r
x <- set_label(1:10, "Integers")
x[1:3]
x[3] <- pi
x <- pi
```

get_label  Extract Label Attribute From a Labelled Vector

Description

Retrieve the label attribute of a labelled vector. If the vector has no label, the vector name is returned as a string.
Usage

get_label(x, ...)

## Default S3 method:
get_label(x, ...)

## S3 method for class 'data.frame'
get_label(x, vars = NULL, ..., return_vector = TRUE)

Arguments

x An atomic vector.
...
vars A character vector of variable names in x for which to retrieve labels. If NULL, all labels are returned.
return_vector logical. When TRUE, a vector of the variables is returned. Otherwise, a named list mapping variable names to labels is returned. The named list can be useful for restoring labels after various transformations that may drop attributes.

See Also

set_label

Examples

x <- 1:10
x <- set_label(x, "Integers")

get_label(x)

y <- letters
attr(y, "label") # NULL
get_label(y) # "y"

# Set labels for variables in a data frame

mtcars2 <-
  set_label(mtcars,
            am = "Automatic / Manual",
            mpg = "Miles per Gallon",
            gear = "Number of gears")

get_label(mtcars2)
is_labelled

Evaluate if a vector is labelled

Description
Functions to determine if a vector has a label.

Usage
is.labelled(x)

Arguments
x An atomic vector

Value
Returns a logical(1).

Functional Requirements
1. Return a logical value of length 1.
2. Cast an error if x is not atomic.

print.labelled
Print Method for Labelled Vectors

Description
Labelled vectors are printed with their label appearing above the content of the vector.

Usage
## S3 method for class 'labelled'
print(x, ...)

Arguments
x A vector inheriting class labelled
... Additional arguments to pass to other methods.
set_label

Set the label of an atomic vector

Description
Variable labels are a common construct in statistical software, giving users the ability to provide plain text descriptions for variables. These descriptions can be more informative of the variable’s purpose, since they need not be restricted to the naming conventions imposed on variable names.

Usage

```r
set_label(x, ...)  
## Default S3 method:  
set_label(x, label, ...)  
## S3 method for class 'data.frame'  
set_label(x, ..., .dots = list())
```

Arguments

- `x` An atomic vector
- `...` For the default method, arguments to pass to other methods. For the `data.frame` method, key-pairs of the pattern `variable = label`.
- `label` character(1). A character string denoting the label to assign to the variable.
- `dots`, for data frames, a named list of key-pairs mapping the variable name to the label.

Source

See Also

- `get_label`

Examples

```r
x <- 1:10  
x <- set_label(x, "Integers")  
x

# Set labels for variables in a data frame

mtcars2 <-  
set_label(mtcars,  
am = "Automatic / Manual",
```
set_label

mpg = "Miles per Gallon",
gear = "Number of gears")

get_label(mtcars2)
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