

Package ‘edm1’

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Title Simplify Complex Data Manipulation

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Description Provides complex sorting algorithms. Provides date manipulation algorithms. In addition to providing handy functions to discretize variables, an SQL joins alternatives, a set of functions to work with geographical coordinates, and other functions to work with text mining.

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Encoding UTF-8

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Imports stringr,
stringi,
dplyr,
data.table,
openxlsx

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|----------|-----------------|
| all_stat | <i>all_stat</i> |
|----------|-----------------|

Description

Allow to see all the main statistics indicators (mean, median, variance, standard deviation, sum, max, min, quantile) of variables in a dataframe by the modality of a variable in a column of the input datarame. In addition to that, you can get the occurence of other qualitative variables by your chosen qualitative variable, you have just to precise it in the vector "stat_var" where all the statistics indicators are given with "occu-var_you_want/".

Usage

```
all_stat(inpt_v, var_add = c(), stat_var = c(), inpt_datf)
```

Arguments

inpt_v is the modalities of the variables
 var_add is the variables you want to get the stats from
 stat_var is the stats indicators you want
 inpt_datf is the input dataframe

Examples

```

datf <- data.frame("mod"=c("first", "seco", "seco", "first", "first", "third", "first"),
  "var1"=c(11, 22, 21, 22, 22, 11, 9),
  "var2"=c("d", "d", "z", "z", "z", "d", "z"),
  "var3"=c(45, 44, 43, 46, 45, 45, 42),
  "var4"=c("A", "A", "A", "A", "B", "C", "C"))

```

```

print(all_stat(inpt_v=c("first", "seco"), var_add = c("var1", "var2", "var3", "var4"),
  stat_var=c("sum", "mean", "median", "sd", "occu-var2/", "occu-var4/", "variance",
"quantile-0.75/"),
  inpt_datf=datf))

```

```

#   modal_v var_vector occu sum mean  med standard_devaition      variance
#1      first
#2          var1          64   16 16.5   6.97614984548545 48.6666666666667
#3          var2-d          1
#4          var2-z          3
#5          var3         178 44.5   45   1.73205080756888          3
#6          var4-A          2
#7          var4-B          1
#8          var4-C          1
#9      seco
#10         var1          43 21.5 21.5   0.707106781186548          0.5
#11         var2-d          1
#12         var2-z          1
#13         var3          87 43.5 43.5   0.707106781186548          0.5
#14         var4-A          2
#15         var4-B          0
#16         var4-C          0
#   quantile-0.75
#1
#2          22
#3
#4
#5          45.25
#6
#7
#8
#9
#10         21.75
#11
#12
#13         43.75
#14
#15
#16

```

| | |
|---------------|----------------------|
| any_join_datf | <i>any_join_datf</i> |
|---------------|----------------------|

Description

Allow to perform SQL joints with more features

Usage

```
any_join_datf(
  inpt_datf_l,
  join_type = "inner",
  join_spe = NA,
  id_v = c(),
  excl_col = c(),
  rtn_col = c(),
  d_val = NA
)
```

Arguments

| | |
|--------------------------|---|
| <code>inpt_datf_l</code> | is a list containing all the dataframe |
| <code>join_type</code> | is the joint type. Defaults to inner but can be changed to a vector containing all the dataframes you want to take their ids to don external joints. |
| <code>join_spe</code> | can be equal to a vector to do an external joints on all the dataframes. In this case, <code>join_type</code> should not be equal to "inner" |
| <code>id_v</code> | is a vector containing all the ids name of the dataframes. The ids names can be changed to number of their columns taking in count their position in <code>inpt_datf_l</code> . It means that if my id is in the third column of the second dataframe and the first dataframe have 5 columns, the column number of the ids is $5 + 3 = 8$ |
| <code>excl_col</code> | is a vector containing the column names to exclude, if this vector is filled so "rtn_col" should not be filled. You can also put the column number in the manner indicated for "id_v". Defaults to <code>c()</code> |
| <code>rtn_col</code> | is a vector containing the column names to retain, if this vector is filled so "excl_col" should not be filled. You can also put the column number in the manner indicated for "id_v". Defaults to <code>c()</code> |
| <code>d_val</code> | is the default val when here is no match |

Examples

```
datf1 <- data.frame("val"=c(1, 1, 2, 4), "ids"=c("e", "a", "z", "a"),
  "last"=c("oui", "oui", "non", "oui"),
  "second_ids"=c(13, 11, 12, 8), "third_col"=c(4:1))

datf2 <- data.frame("val"=c(3, 7, 2, 4, 1, 2), "ids"=c("a", "z", "z", "a", "a", "a"),
  "bool"=c(TRUE, FALSE, FALSE, FALSE, TRUE, TRUE),
  "second_ids"=c(13, 12, 8, 34, 22, 12))

datf3 <- data.frame("val"=c(1, 9, 2, 4), "ids"=c("a", "a", "z", "a"),
  "last"=c("oui", "oui", "non", "oui"),
```

```

"second_ids"=c(13, 11, 12, 8))

print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type="inner",
  id_v=c("ids", "second_ids"),
  excl_col=c(), rtn_col=c()))

# ids val ids last second_ids val ids bool second_ids val ids last second_ids
#3 z12 2 z non 12 7 z FALSE 12 2 z non 12

print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type="inner", id_v=c("ids",
  excl_col=c(), rtn_col=c()))

# ids val ids last second_ids val ids bool second_ids val ids last second_ids
#2 a 1 a oui 11 3 a TRUE 13 1 a oui 13
#3 z 2 z non 12 7 z FALSE 12 2 z non 12
#4 a 4 a oui 8 4 a FALSE 34 9 a oui 11

print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type=c(1), id_v=c("ids"),
  excl_col=c(), rtn_col=c()))

# ids val ids last second_ids val ids bool second_ids val ids last
#1 e 1 e oui 13 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#2 a 1 a oui 11 3 a TRUE 13 1 a oui
#3 z 2 z non 12 7 z FALSE 12 2 z non
#4 a 4 a oui 8 4 a FALSE 34 9 a oui
# second_ids
#1 <NA>
#2 13
#3 12
#4 11

print(any_join_datf(inpt_datf_l=list(datf2, datf1, datf3), join_type=c(1, 3),
  id_v=c("ids", "second_ids"),
  excl_col=c(), rtn_col=c()))

# ids val ids bool second_ids val ids last second_ids val ids last
#1 a13 3 a TRUE 13 <NA> <NA> <NA> <NA> 1 a oui
#2 z12 7 z FALSE 12 2 z non 12 2 z non
#3 z8 2 z FALSE 8 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#4 a34 4 a FALSE 34 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#5 a22 1 a TRUE 22 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#6 a12 2 a TRUE 12 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#7 a13 <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#8 a11 <NA> <NA> <NA> <NA> 1 a oui 11 9 a oui
#9 z12 <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#10 a8 <NA> <NA> <NA> <NA> 4 a oui 8 4 a oui
# second_ids
#1 13
#2 12
#3 <NA>
#4 <NA>
#5 <NA>
#6 <NA>
#7 <NA>
#8 11
#9 <NA>
#10 8

```

```
print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type=c(1), id_v=c("ids"),
                    excl_col=c(), rtn_col=c()))

#ids val ids last second_ids val ids bool second_ids val ids last
#1 e 1 e oui 13 <NA> <NA> <NA> <NA> <NA> <NA> <NA>
#2 a 1 a oui 11 3 a TRUE 13 1 a oui
#3 z 2 z non 12 7 z FALSE 12 2 z non
#4 a 4 a oui 8 4 a FALSE 34 9 a oui
# second_ids
#1 <NA>
#2 13
#3 12
#4 11
```

| | |
|--------|---------------|
| appndr | <i>appndr</i> |
|--------|---------------|

Description

Append to a vector "inpt_v" a special value "val" n times "mmn". The appending begins at "strt" index.

Usage

```
appndr(inpt_v, val = NA, hmn, strt = "max")
```

Arguments

- inpt_v is the input vector
- val is the special value
- hmn is the number of special value element added
- strt is the index from which appending begins, defaults to max which means the end of "inpt_v"

Examples

```
print(appndr(inpt_v=c(1:3), val="oui", hmn=5))

#[1] "1" "2" "3" "oui" "oui" "oui" "oui" "oui"

print(appndr(inpt_v=c(1:3), val="oui", hmn=5, strt=1))

#[1] "1" "oui" "oui" "oui" "oui" "oui" "2" "3"
```

| | |
|---------------|----------------------|
| arroundr_mean | <i>arroundr_mean</i> |
|---------------|----------------------|

Description

Takes an ascendly int ordered vector as input and assigns each elements that are close enough to the same value accrdng to a step value (step_value), see examples.

Usage

```
arroundr_mean(inpt_v = c(), step_val)
```

Arguments

| | |
|----------|---------------------|
| inpt_v | is the input vector |
| step_val | is the step_value |

Examples

```
x <- arroundr_mean(inpt_v = c(-11:25), step_val = 5)
print(x)
print(length(x))

[1] -9.0 -9.0 -9.0 -9.0 -9.0 -4.0 -4.0 -4.0 -4.0 -4.0  1.0  1.0  1.0  1.0  1.0
[16]  6.0  6.0  6.0  6.0  6.0 11.0 11.0 11.0 11.0 11.0 16.0 16.0 16.0 16.0 16.0
[31] 21.0 21.0 21.0 21.0 21.0 23.8 23.8
[1] 37
```

| | |
|--------------|---------------------|
| arroundr_min | <i>arroundr_min</i> |
|--------------|---------------------|

Description

Takes an ascendly int ordered vector as input and assigns each elements that are close enough to the same value accrdng to a step value (step_value), see examples.

Usage

```
arroundr_min(inpt_v = c(), step_val)
```

Arguments

| | |
|----------|---------------------|
| inpt_v | is the input vector |
| step_val | is the step value |

Examples

```
print(arroundr_min(inpt_v = c(-11:25), step_val = 5))

[1] -11 -11 -11 -11 -11 -11  -6  -6  -6  -6  -6  -1  -1  -1  -1  -1   4   4   4
[20]   4   4   9   9   9   9   9  14  14  14  14  14  19  19  19  19  19  24
```

| | |
|--------------|---------------------|
| better_match | <i>better_match</i> |
|--------------|---------------------|

Description

Allow to get the nth element matched in a vector

Usage

```
better_match(inpt_v = c(), ptrn, until = 1, nvr_here = NA)
```

Arguments

| | |
|----------|---|
| inpt_v | is the input vector |
| ptrn | is the pattern to be matched |
| until | is the maximum number of matched pattern outputed |
| nvr_here | is a value you are sure is not present in inpt_v |

Examples

```
print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=3, until=1))
#[1] 3

print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=3, until=5))
#[1] 3 13 16

print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=c(3, 4), until=5))
[1] 3 13 16 4 14

print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=c(3, 4), until=c(1, 5)))
[1] 3 4 14
```

| | |
|--------------|---------------------|
| better_split | <i>better_split</i> |
|--------------|---------------------|

Description

Allows to split a string by multiple split, returns a vector and not a list.

Usage

```
better_split(inpt, split_v = c())
```

Arguments

inpt is the input character
split_v is the vector containing the splits

Examples

```
print(better_split(inpt = "o-u_i", split_v = c("-")))  

[1] "o"    "u_i"  

print(better_split(inpt = "o-u_i", split_v = c("-", "_")))  

[1] "o" "u" "i"
```

better_split_any *better_split_any*

Description

Allows to split a string by multiple split regardless of their length, returns a vector and not a list.
Contrary to better_split, this functions keep the delimiters in the output.

Usage

```
better_split_any(inpt, split_v = c())
```

Arguments

inpt is the input character
split_v is the vector containing the splits

Examples

```
print(better_split_any(inpt = "o-u_i", split_v = c("-")))  

[1] "o"    "-"    "u_i"  

print(better_split_any(inpt = "o-u_i", split_v = c("-", "_")))  

[1] "o"    "-"    "u"    "_"    "i"  

print(better_split_any(inpt = "--o--_/m/m/___opo-/m/-u_i-__", split_v = c("--", "_", "/"))  

[1] "--"    "o"    "--"    "_"    "/"    "m"    "/"    "m"    "/"  

[10] "_"    "_"    "-opo-"    "/"    "m"    "/"    "-u"    "_"    "i-"  

[19] "_"    "--"  

print(better_split_any(inpt = "(ok(ee:56))(ok2(oui)(ee:4))", split_v = c("(", ")", ":"))  

[1] "("    "ok"    "("    "ee"    ":"    "56"    ")"    ")"    "("    "ok2"    "("    "oui"  

[13] ")"    "("    "ee"    ":"    "4"    ")"    ")"
```

better_sub

*better_sub***Description**

Allow to perform a sub operation to a given number of matched patterns, see examples

Usage

```
better_sub(inpt_v = c(), pattern, replacement, until_v = c())
```

Arguments

| | |
|--------------------------|--|
| <code>inpt_v</code> | is a vector containing all the elements that contains expressions to be substituted |
| <code>pattern</code> | is the expression that will be substituted |
| <code>replacement</code> | is the expression that will substitute pattern |
| <code>until_v</code> | is a vector containing, for each element of <code>inpt_v</code> , the number of pattern that will be substituted |

Examples

```
print(better_sub(inpt_v = c("yes NAME, i will call NAME and NAME",
                           "yes NAME, i will call NAME and NAME"),
               pattern = "NAME",
               replacement = "Kevin",
               until = c(2)))

[1] "yes Kevin, i will call Kevin and NAME"
[2] "yes Kevin, i will call Kevin and NAME"

print(better_sub(inpt_v = c("yes NAME, i will call NAME and NAME",
                           "yes NAME, i will call NAME and NAME"),
               pattern = "NAME",
               replacement = "Kevin",
               until = c(2, 3)))

[1] "yes Kevin, i will call Kevin and NAME"
[2] "yes Kevin, i will call Kevin and Kevin"

print(better_sub(inpt_v = c("yes NAME, i will call NAME and NAME",
                           "yes NAME, i will call NAME and NAME"),
               pattern = "NAME",
               replacement = "Kevin",
               until = c("max", 3)))

[1] "yes Kevin, i will call Kevin and Kevin"
[2] "yes Kevin, i will call Kevin and Kevin"
```

| | |
|-----------------|------------------------|
| better_sub_mult | <i>better_sub_mult</i> |
|-----------------|------------------------|

Description

Allow to perform a sub_mult operation to a given number of matched patterns, see examples

Usage

```
better_sub_mult(
  inpt_v = c(),
  pattern_v = c(),
  replacement_v = c(),
  until_v = c()
)
```

Arguments

| | |
|---------------|--|
| inpt_v | is a vector containing all the elements that contains expressions to be substituted |
| pattern_v | is a vector containing all the patterns to be substituted in any elements of inpt_v |
| replacement_v | is a vector containing the expression that are going to substitute those provided by pattern_v |
| until_v | is a vector containing, for each element of inpt_v, the number of pattern that will be substituted |

Examples

```
print(better_sub_mult(inpt_v = c("yes NAME, i will call NAME and NAME2",
                                "yes NAME, i will call NAME and NAME2, especially NAME2"),
  pattern_v = c("NAME", "NAME2"),
  replacement_v = c("Kevin", "Paul"),
  until = c(1, 3)))

[1] "yes Kevin, i will call NAME and Paul"
[2] "yes Kevin, i will call NAME and Paul, especially Paul"

print(better_sub_mult(inpt_v = c("yes NAME, i will call NAME and NAME2",
                                "yes NAME, i will call NAME and NAME2, especially NAME2"),
  pattern_v = c("NAME", "NAME2"),
  replacement_v = c("Kevin", "Paul"),
  until = c("max", 3)))

[1] "yes Kevin, i will call Kevin and Kevin2"
[2] "yes Kevin, i will call Kevin and Kevin2, especially Kevin2"
```

| | |
|---------------|----------------------|
| better_unique | <i>better_unique</i> |
|---------------|----------------------|

Description

Returns the element that are not unique from the input vector

Usage

```
better_unique(inpt_v, occu = ">-1-")
```

Arguments

| | |
|--------|---|
| inpt_v | is the input vector containing the elements |
| occu | is a parameter that specifies the occurrence of the elements that must be returned, defaults to ">-1-" it means that the function will return all the elements that are present more than one time in inpt_v. The syntax is the following "comparaison_type-actual_value-". The comparaison type may be "==" or ">" or "<". Occu can also be a vector containing all the occurrence that must have the elements to be returned. |

Examples

```
print(better_unique(inpt_v=c("oui", "oui", "non", "non", "peut", "peut1", "non")))
#[1] "oui" "non"

print(better_unique(inpt_v=c("oui", "oui", "non", "non", "peut", "peut1", "non"), occu=">-1-"))
#[1] "oui"

print(better_unique(inpt_v=c("oui", "oui", "non", "non", "peut", "peut1", "non"), occu=">-2-"))
#[1] "non"

print(better_unique(inpt_v=c("oui", "oui", "non", "non", "peut", "peut1", "non"), occu=c("non", "peut", "peut1")))
#[1] "non" "peut" "peut1"

print(better_unique(inpt_v = c("a", "b", "c", "c"), occu = "=="-1-))
[1] "a" "b"

print(better_unique(inpt_v = c("a", "b", "c", "c"), occu = "<-2-"))
[1] "a" "b"
```

`bind_cols`*bind_cols*

Description

Allow to find the cols of a dataframe in an other dataframe, see examples

Usage

```
bind_cols(from_datf, in_datf)
```

Arguments

`from_datf` is the dataframe that contains the cols to find among other cols
`in_datf` is the dataframe that only contains the cols to find in `from_datf`

Examples

```
iris[, 5] <- as.character(iris[, 5])
iris <- cbind(iris, iris[, 4])
from_datf <- iris
in_datf <- iris[, c(1, 2, 2, 2, 4)]
bind_cols(from_datf = from_datf,
          in_datf = in_datf)

[[1]]
[1] 1

[[2]]
[1] 2

[[3]]
[1] 2

[[4]]
[1] 2

[[5]]
[1] 4 6
```

`bind_rows`*bind_rows*

Description

Allow to find the rows of a dataframe in an other dataframe, see examples

Usage

```
bind_rows(from_datf, in_datf)
```

Arguments

`from_datf` is the dataframe that contains the rows to find among other rows
`in_datf` is the dataframe that only contains the rows to find in `from_datf`

Examples

```
iris[, 5] <- as.character(iris[, 5])  
from_datf <- iris  
in_datf <- iris[c(4, 2, 23, 21, 11), ]
```

```
bind_rows(from_datf = from_datf,  
          in_datf = in_datf)
```

```
[[1]]  
[1] 4
```

```
[[2]]  
[1] 2
```

```
[[3]]  
[1] 23
```

```
[[4]]  
[1] 21
```

```
[[5]]  
[1] 11
```

`can_be_num`*can_be_num*

Description

Return TRUE if a variable can be converted to a number and FALSE if not (supports float)

Usage

```
can_be_num(x)
```

Arguments

`x` is the input value

Examples

```
print(can_be_num("34.677"))
```

```
#[1] TRUE
```

```
print(can_be_num("34"))
```

```
#[1] TRUE
```



```
print(can_be_num("3rt4"))

#[1] FALSE

print(can_be_num(34))

#[1] TRUE
```

closer_ptrn

closer_ptrn

Description

Take a vector of patterns as input and output each chosen word with their closest patterns from chosen patterns.

Usage

```
closer_ptrn(
  inpt_v,
  base_v = c("?", letters),
  excl_v = c(),
  rtn_v = c(),
  sub_excl_v = c(),
  sub_rtn_v = c()
)
```

Arguments

| | |
|-------------------------|--|
| <code>inpt_v</code> | is the input vector containing all the patterns |
| <code>base_v</code> | must contain all the characters that the patterns are susceptible to contain, defaults to <code>c("?", letters)</code> . "?" is necessary because it is internally the default value added to each element that does not have a sufficient length compared to the longest pattern in <code>inpt_v</code> . If set to NA, the function will find by itself the elements to be filled with but it may take an extra time |
| <code>excl_v</code> | is the vector containing all the patterns from <code>inpt_v</code> to exclude for comparing them to others patterns. If this parameter is filled, so "rtn_v" must be empty. |
| <code>rtn_v</code> | is the vector containing all the patterns from <code>inpt_v</code> to keep for comparing them to others patterns. If this parameter is filled, so "rtn_v" must be empty. |
| <code>sub_excl_v</code> | is the vector containing all the patterns from <code>inpt_v</code> to exclude for using them to compare to another pattern. If this parameter is filled, so "sub_rtn_v" must be empty. |
| <code>sub_rtn_v</code> | is the vector containing all the patterns from <code>inpt_v</code> to retain for using them to compare to another pattern. If this parameter is filled, so "sub_excl_v" must be empty. |

Examples

```

print(closer_ptrn(inpt_v=c("bonjour", "lpoerc", "nonnour", "bonnour", "nonjour", "aurevoir"

#[[1]]
#[1] "bonjour"
#
#[[2]]
#[1] "lpoerc"      "nonnour"      "bonnour"      "nonjour"      "aurevoir"
#
#[[3]]
#[1] 1 1 2 7 8
#
#[[4]]
#[1] "lpoerc"
#
#[[5]]
#[1] "bonjour"      "nonnour"      "bonnour"      "nonjour"      "aurevoir"
#
#[[6]]
#[1] 7 7 7 7 7
#
#[[7]]
#[1] "nonnour"
#
#[[8]]
#[1] "bonjour"      "lpoerc"      "bonnour"      "nonjour"      "aurevoir"
#
#[[9]]
#[1] 1 1 2 7 8
#
#[[10]]
#[1] "bonnour"
#
#[[11]]
#[1] "bonjour"      "lpoerc"      "nonnour"      "nonjour"      "aurevoir"
#
#[[12]]
#[1] 1 1 2 7 8
#
#[[13]]
#[1] "nonjour"
#
#[[14]]
#[1] "bonjour"      "lpoerc"      "nonnour"      "bonnour"      "aurevoir"
#
#[[15]]
#[1] 1 1 2 7 8
#
#[[16]]
#[1] "aurevoir"
#
#[[17]]
#[1] "bonjour"      "lpoerc"      "nonnour"      "bonnour"      "nonjour"
#
#[[18]]
#[1] 7 8 8 8 8

```

```

print(closer_ptrn(inpt_v=c("bonjour", "lpoerc", "nonnour", "bonnour", "nonjour", "aurevoir",
excl_v=c("nonnour", "nonjour"),
              sub_excl_v=c("nonnour")))

#[1] 3 5
#[[1]]
#[1] "bonjour"
#
#[[2]]
#[1] "lpoerc" "bonnour" "nonjour" "aurevoir"
#
#[[3]]
#[1] 1 1 7 8
#
#[[4]]
#[1] "lpoerc"
#
#[[5]]
#[1] "bonjour" "bonnour" "nonjour" "aurevoir"
#
#[[6]]
#[1] 7 7 7 7
#
#[[7]]
#[1] "bonnour"
#
#[[8]]
#[1] "bonjour" "lpoerc" "bonnour" "nonjour" "aurevoir"
#
#[[9]]
#[1] 0 1 2 7 8
#
#[[10]]
#[1] "aurevoir"
#
#[[11]]
#[1] "bonjour" "lpoerc" "nonjour" "aurevoir"
#
#[[12]]
#[1] 0 7 8 8

```

closer_ptrn_adv closer_ptrn_adv

Description

Allow to find how patterns are far or near between each other relatively to a vector containing characters at each index ("base_v"). The function gets the sum of the indexes of each pattern letter relatively to the characters in base_v. So each pattern can be compared.

Usage

```
closer_ptrn_adv(
  inpt_v,
  res = "raw_stat",
  default_val = "?",
  base_v = c(default_val, letters),
  c_word = NA
)
```

Arguments

| | |
|--------------------------|--|
| <code>inpt_v</code> | is the input vector containing all the patterns to be analyzed |
| <code>res</code> | is a parameter controlling the result. If set to "raw_stat", each word in <code>inpt_v</code> will come with its score (indexes of its letters relatively to <code>base_v</code>). If set to something else, so "c_word" parameter must be filled. |
| <code>default_val</code> | is the value that will be added to all patterns that do not equal the length of the longest pattern in <code>inpt_v</code> . Those get this value added to make all patterns equal in length so they can be compared, defaults to "?" |
| <code>base_v</code> | is the vector from which all pattern get its result (letters indexes for each pattern relatively to <code>base_v</code>), defaults to <code>c("default_val", letters)</code> . "default_val" is another parameter and letters is all the western alphabetic letters in a vector |
| <code>c_word</code> | is a pattern from which the nearest to the farrest pattern in <code>inpt_v</code> will be compared |

Examples

```
print(closer_ptrn_adv(inpt_v=c("aurevoir", "bonnour", "nonnour", "fin", "mois", "bonjour"),
  res="word", c_word="bonjour"))

#[[1]]
#[1] 1 5 15 17 38 65
#
#[[2]]
#[1] "bonjour" "bonnour" "aurevoir" "nonnour" "mois" "fin"

print(closer_ptrn_adv(inpt_v=c("aurevoir", "bonnour", "nonnour", "fin", "mois")))

#[[1]]
#[1] 117 107 119 37 64
#
#[[2]]
#[1] "aurevoir" "bonnour" "nonnour" "fin" "mois"
```

Description

Allow to output clusters of elements. Takes as input a vector "inpt_v" containing a sequence of number. Can also take another vector "w_v" that has the same size of inpt_v because its elements are related to it. The way the clusters are made is related to an accuracy value which is "c_val". It means that if the difference between the values associated to 2 elements is superior to c_val, these two elements are in distinct clusters. The second element of the outputed list is the begin and end value of each cluster.

Usage

```
clusterizer_v(inpt_v, w_v = NA, c_val)
```

Arguments

| | |
|--------|---|
| inpt_v | is the vector containing the sequence of number |
| w_v | is the vector containing the elements related to inpt_v, defaults to NA |
| c_val | is the accuracy of the clusterization |

Examples

```
print(clusterizer_v(inpt_v=sample.int(20, 26, replace=TRUE), w_v=NA, c_val=0.9))

# [[1]]
# [[1]] [[1]]
# [1] 1
#
# [[1]] [[2]]
# [1] 2
#
# [[1]] [[3]]
# [1] 3
#
# [[1]] [[4]]
# [1] 4
#
# [[1]] [[5]]
# [1] 5 5
#
# [[1]] [[6]]
# [1] 6 6 6 6
#
# [[1]] [[7]]
# [1] 7 7 7
#
# [[1]] [[8]]
# [1] 8 8 8
#
# [[1]] [[9]]
# [1] 9
#
# [[1]] [[10]]
# [1] 10
#
# [[1]] [[11]]
# [1] 12
```

```

#
#[[1]][[12]]
#[1] 13 13 13
#
#[[1]][[13]]
#[1] 18 18 18
#
#[[1]][[14]]
#[1] 20
#
#
#[[2]]
# [1] "1" "1" "-" "2" "2" "-" "3" "3" "-" "4" "4" "-" "5" "5" "-"
#[16] "6" "6" "-" "7" "7" "-" "8" "8" "-" "9" "9" "-" "10" "10" "-"
#[31] "12" "12" "-" "13" "13" "-" "18" "18" "-" "20" "20"

print(clusterizer_v(inpt_v=sample.int(40, 26, replace=TRUE), w_v=letters, c_val=0.29))

#[[1]]
#[[1]][[1]]
#[1] "a"
#
#[[1]][[2]]
#[1] "b"
#
#[[1]][[3]]
#[1] "c" "d"
#
#[[1]][[4]]
#[1] "e" "f"
#
#[[1]][[5]]
#[1] "g" "h" "i" "j"
#
#[[1]][[6]]
#[1] "k"
#
#[[1]][[7]]
#[1] "l"
#
#[[1]][[8]]
#[1] "m" "n"
#
#[[1]][[9]]
#[1] "o"
#
#[[1]][[10]]
#[1] "p"
#
#[[1]][[11]]
#[1] "q" "r"
#
#[[1]][[12]]
#[1] "s" "t" "u"
#
#[[1]][[13]]
#[1] "v"

```

```

#
#[[1]][[14]]
#[1] "w"
#
#[[1]][[15]]
#[1] "x"
#
#[[1]][[16]]
#[1] "y"
#
#[[1]][[17]]
#[1] "z"
#
#
#[[2]]
# [1] "13" "13" "-" "14" "14" "-" "15" "15" "-" "16" "16" "-" "17" "17" "-"
#[16] "19" "19" "-" "21" "21" "-" "22" "22" "-" "23" "23" "-" "25" "25" "-"
#[31] "27" "27" "-" "29" "29" "-" "30" "30" "-" "31" "31" "-" "34" "34" "-"
#[46] "35" "35" "-" "37" "37"

```

colins_datf

colins_datf

Description

Allow to insert vectors into a dataframe.

Usage

```
colins_datf(inpt_datf, target_col = list(), target_pos = list())
```

Arguments

| | |
|-------------------------|--|
| <code>inpt_datf</code> | is the dataframe where vectors will be inserted |
| <code>target_col</code> | is a list containing all the vectors to be inserted |
| <code>target_pos</code> | is a list containing the vectors made of the columns names or numbers where the associated vectors from <code>target_col</code> will be inserted after |

Examples

```

datf1 <- data.frame("frst_col"=c(1:5), "scd_col"=c(5:1))

print(colins_datf(inpt_datf=datf1, target_col=list(c("oui", "oui", "oui", "non", "non"),
  c("u", "z", "z", "z", "u")),
  target_pos=list(c("frst_col", "scd_col"), c("scd_col"))))

#  frst_col cur_col scd_col cur_col.1 cur_col
#1      1      oui      5      oui      u
#2      2      oui      4      oui      z
#3      3      oui      3      oui      z
#4      4      non      2      non      z
#5      5      non      1      non      u

```

```
print(colins_datf(inpt_datf=datf1, target_col=list(c("oui", "oui", "oui", "non", "non"),
                                                    c("u", "z", "z", "z", "u")),
              target_pos=list(c(1, 2), c("first_col"))))

#  first_col cur_col scd_col cur_col cur_col
#1         1    oui      5      u    oui
#2         2    oui      4      z    oui
#3         3    oui      3      z    oui
#4         4    non      2      z    non
#5         5    non      1      u    non
```

| | |
|------------|-------------------|
| col_to_row | <i>col_to_row</i> |
|------------|-------------------|

Description

Allow to reverse a dataframe (cols become rows and rows become cols)

Usage

```
col_to_row(inpt_datf)
```

Arguments

inpt_datf is the inout dataframe

Examples

```
datf_test <- data.frame(c(1:11), c(11:1))

print(col_to_row(inpt_datf = datf_test))

  X1 X2 X3 X4 X5 X6 X7 X8 X9 X10 X11
1  1  2  3  4  5  6  7  8  9  10  11
2 11 10  9  8  7  6  5  4  3  2  1
```

| | |
|----------------|-----------------------|
| converter_date | <i>converter_date</i> |
|----------------|-----------------------|

Description

Allow to convert any date like second/minute/hour/day/month/year to either second, minute...year. The input date should not necessarily have all its time units (second, minute...) but all the time units according to a format. Example: "snhdmy" is for second, hour, minute, day, month, year. And "mdy" is for month, day, year.

Usage

```
converter_date(inpt_date, convert_to, frmt = "snhdmy", sep_ = "-")
```


Arguments

- inpt_date is the input date
- convert_to is the time unit the input date will be converted ("s", "n", "h", "d", "m", "y")
- frmt is the format of the input date
- sep_ is the separator of the input date. For example this input date "12-07-2012" has "-" as a separator

Examples

```
print(converter_date(inpt_date="14-04-11-2024", sep_="-", frmt="hdmy", convert_to="m"))
#[1] 24299.15

print(converter_date(inpt_date="14-04-11-2024", sep_="-", frmt="hdmy", convert_to="y"))
#[1] 2024.929

print(converter_date(inpt_date="14-04-11-2024", sep_="-", frmt="hdmy", convert_to="s"))
#[1] 63900626400

print(converter_date(inpt_date="63900626400", sep_="-", frmt="s", convert_to="y"))
#[1] 2024.929

print(converter_date(inpt_date="2024", sep_="-", frmt="y", convert_to="s"))
#[1] 63873964800
```

| | |
|------------------|------------------|
| converter_format | converter_format |
|------------------|------------------|

Description

Allow to convert a format to another

Usage

```
converter_format(inpt_val, sep_ = "-", inpt_frmt, frmt, default_val = "00")
```

Arguments

- inpt_val is the input value that is linked to the format
- sep_ is the separator of the value in inpt_val
- inpt_frmt is the format of the input value
- frmt is the format you want to convert to
- default_val is the default value given to the units that are not present in the input format

Examples

```
print(converter_format(inpt_val="23-12-05-1567", sep="-",
                      inpt_frmt="shmy", frmt="snhdmy", default_val="00"))

#[1] "23-00-12-00-05-1567"

print(converter_format(inpt_val="23-12-05-1567", sep="-",
                      inpt_frmt="shmy", frmt="Pnhdmy", default_val="00"))

#[1] "00-00-12-00-05-1567"
```

| | |
|----------------|-----------------------|
| cost_and_taxes | <i>cost_and_taxes</i> |
|----------------|-----------------------|

Description

Allow to calculate basic variables related to cost and taxes from a bunch of products (elements). So put every variable you know in the following order:

Usage

```
cost_and_taxes(
  qte = NA,
  pu = NA,
  prix_ht = NA,
  tva = NA,
  prix_ttc = NA,
  prix_tva = NA,
  pu_ttc = NA,
  adjust = NA,
  prix_d_ht = NA,
  prix_d_ttc = NA,
  pu_d = NA,
  pu_d_ttc = NA
)
```

Arguments

| | |
|------------|---|
| qte | is the quantity of elements |
| pu | is the price of a single elements without taxes |
| prix_ht | is the duty-free price of the whole set of elements |
| tva | is the percentage of all taxes |
| prix_ttc | is the price of all the elements with taxes |
| prix_tva | is the cost of all the taxes |
| pu_ttc | is the price of a single element taxes included |
| adjust | is the discount percentage |
| prix_d_ht | is the free-duty price of an element after discount |
| prix_d_ttc | is the price with taxes of an element after discount |
| pu_d | is the price of a single element after discount and without taxes |
| pu_d_ttc | is the free-duty price of a single element after discount |

Examples

```
print(cost_and_taxes(pu=45, prix_ttc=2111, qte=23))

# [1] 23.000000 45.000000 45.000000 1.039614 2111.000000 1076.000000
#[7] 45.000000 NA NA NA NA NA
```

| | |
|----------------|-----------------------|
| cumulated_rows | <i>cumulated_rows</i> |
|----------------|-----------------------|

Description

Output a vector of size that equals to the rows number of the input dataframe, with TRUE value at the indices corresponding to the row where at least a cell of any column is equal to one of the values inputed in values_v

Usage

```
cumulated_rows(inpt_datf, values_v = c())
```

Arguments

| | |
|-----------|--|
| inpt_datf | is the input data.frame |
| values_v | is a vector containing all the values that a cell has to equal to return a TRUE value in the output vector at the index corresponding to the row of the cell |

Examples

```
datf_teste <- data.frame(c(1:10), c(10:1))

print(datf_teste)

  c.1.10. c.10.1.
1      1      10
2      2       9
3      3       8
4      4       7
5      5       6
6      6       5
7      7       4
8      8       3
9      9       2
10     10       1

print(cumulated_rows(inpt_datf = datf_teste, values_v = c(2, 3)))

[1] FALSE TRUE TRUE FALSE FALSE FALSE FALSE TRUE TRUE FALSE
```

```
cumulated_rows_na  cumulated_rows_na
```

Description

Output a vector of size that equals to the rows number of the input dataframe, with TRUE value at the indices corresponding to the row where at least a cell of any column is equal to NA.

Usage

```
cumulated_rows_na(inpt_datf)
```

Arguments

`inpt_datf` is the input data.frame

Examples

```
datf_teste <- data.frame(c(1, 2, 3, 4, 5, NA, 7), c(10, 9, 8, NA, 7, 6, NA))
print(datf_teste)

  c.1..2..3..4..5..NA..7. c.10..9..8..NA..7..6..NA.
1                        1                        10
2                        2                         9
3                        3                         8
4                        4                        NA
5                        5                         7
6                       NA                         6
7                        7                        NA

print(cumulated_rows_na(inpt_datf = datf_teste))

[1] FALSE FALSE FALSE  TRUE FALSE  TRUE  TRUE
```

```
cutr_v
```

```
cutr_v
```

Description

Allow to reduce all the elements in a vector to a defined size of nchar

Usage

```
cutr_v(inpt_v, until = "min")
```

Arguments

`inpt_v` is the input vector

`until` is the maximum size of nchar authorized by an element, defaults to "min", it means the shortest element in the list

Examples

```
test_v <- c("oui", "nonon", "ez", "aa", "a", "dsfsdsds")

print(cutr_v(inpt_v=test_v, untl="min"))

#[1] "o" "n" "e" "a" "a" "d"

print(cutr_v(inpt_v=test_v, untl=3))

#[1] "oui" "non" "ez" "aa" "a" "dsf"
```

cut_v

cut_v

Description

Allow to convert a vector to a dataframe according to a separator.

Usage

```
cut_v(inpt_v, sep_ = "")
```

Arguments

| | |
|--------|--|
| inpt_v | is the input vector |
| sep_ | is the separator of the elements in inpt_v, defaults to "" |

Examples

```
print(cut_v(inpt_v=c("oui", "non", "oui", "non")))

#      X.o. X.u. X.i.
#oui "o" "u" "i"
#non "n" "o" "n"
#oui "o" "u" "i"
#non "n" "o" "n"

print(cut_v(inpt_v=c("ou-i", "n-on", "ou-i", "n-on"), sep_="-"))

#      X.ou. X.i.
#ou-i "ou" "i"
#n-on "n" "on"
#ou-i "ou" "i"
#n-on "n" "on"
```

data_gen

*data_gen***Description**

Allo to generate in a csv all kind of data you can imagine according to what you provide

Usage

```
data_gen(
  type_ = c("number", "mixed", "string"),
  strt_l = c(0, 0, 10),
  nb_r = c(50, 10, 40),
  output = NA,
  properties = c("1-5", "1-5", "1-5"),
  type_distri = c("random", "random", "random"),
  str_source = c("a", "b", "c", "d", "e", "f", "g", "h", "i", "j", "k", "l", "m",
    "o", "p", "q", "r", "s", "t", "u", "w", "x", "y", "z"),
  round_l = c(0, 0, 0),
  sep_ = ",",
)
```

Arguments

| | |
|-------------|---|
| type_ | is a vector. Its arguments designates a column, a column can be made of numbers ("number"), string ("string") or both ("mixed") |
| strt_l | is a vector containing for each column the row from which the data will begin to be generated |
| nb_r | is a vector containing for each column, the number of row full from generated data |
| output | is the name of the output csv file, defaults to NA so no csv will be outputted by default |
| properties | is linked to type_distri because it is the parameters ("min_val-max_val") for "random type", ("u-x") for the poisson distribution, ("u-d") for gaussian distribution |
| type_distri | is a vector which, for each column, associate a type of distribution ("random", "poisson", "gaussian"), it means that not only the number but also the length of the string will be randomly generated according to these distribution laws |
| str_source | is the source (vector) from which the character creating random string are (default set to the occidental alphabet) |
| round_l | is a vector which, for each column containing number, associate a round value, if the type of the value is numeric |
| sep_ | is the separator used to write data in the csv |

Value

new generated data in addition to saving it in the output

Examples

```

print(data_gen())

#   X1   X2   X3
#1   4    2 <NA>
#2   2    4 <NA>
#3   5    2 <NA>
#4   2 abcd <NA>
#5   4 abcd <NA>
#6   2    4 <NA>
#7   2  abc <NA>
#8   4  abc <NA>
#9   4    3 <NA>
#10  4  abc abcd
#11  5 <NA>  abc
#12  4 <NA>  abc
#13  1 <NA>   ab
#14  1 <NA> abcde
#15  2 <NA>  abc
#16  4 <NA>    a
#17  1 <NA>  abcd
#18  4 <NA>   ab
#19  2 <NA>  abcd
#20  3 <NA>   ab
#21  3 <NA>  abcd
#22  2 <NA>    a
#23  4 <NA>  abc
#24  1 <NA>  abcd
#25  4 <NA>  abc
#26  4 <NA>  ab
#27  2 <NA>  abc
#28  5 <NA>  ab
#29  3 <NA>  abc
#30  5 <NA>  abcd
#31  2 <NA>  abc
#32  2 <NA>  abc
#33  1 <NA>   ab
#34  5 <NA>    a
#35  4 <NA>   ab
#36  1 <NA>   ab
#37  1 <NA> abcde
#38  5 <NA>  abc
#39  4 <NA>   ab
#40  5 <NA> abcde
#41  2 <NA>   ab
#42  3 <NA>   ab
#43  2 <NA>   ab
#44  4 <NA>  abcd
#45  5 <NA>  abcd
#46  3 <NA>  abcd
#47  2 <NA>  abcd
#48  3 <NA>  abcd
#49  3 <NA>  abcd
#50  4 <NA>    a

print(data_gen(strt_l=c(0, 0, 0), nb_r=c(5, 5, 5)))

```

```
# X1 X2 X3
#1 2 a abc
#2 3 abcde ab
#3 4 abcde a
#4 1 3 abc
#5 3 a abcd
```

data_mesup

data_mesup

Description

Allow to automatically arrange 1 dimensional data according to vector and parameters

Usage

```
data_mesup(
  data,
  cols = NA,
  file_ = NA,
  sep_ = ";",
  organisation = c(2, 1, 0),
  unic_sep1 = "_",
  unic_sep2 = "-"
)
```

Arguments

| | |
|--------------|--|
| data | is the data provided (vector) each column is separated by a unic separator and each dataset from the same column is separated by another unic separator (ex: <code>c("", c("d", "-", "e", "-", "f"), "", c("a", "a1", "-", "b", "-", "c", "c1"), "_")</code>) |
| cols | are the colnames of the data generated in a csv |
| file_ | is the file to which the data will be outputed, defaults to NA which means that the functio will return the dataframe generated and won't write it to a csv file |
| sep_ | is the separator of the csv outputed |
| organisation | is the way variables include themselves, for instance ,resuming precedent example, if organisation=c(1, 0) so the data output will be: d, a d, a1 e, c f, c f, c1 |
| unic_sep1 | is the unic separator between variables (default is "_") |
| unic_sep2 | is the unic separator between datasets (default is "-") |

Examples

```
print(data_mesup(data=c("_", c("-", "d", "-", "e", "-", "f"), "_",
  c("-", "a", "a1", "-", "B", "r", "uy", "-", "c", "c1"), "_"), organisation=c(1, 0)))

# X1 X2
#1 d a
#2 d a1
#3 e B
```



```
#4 e r
#5 e uy
#6 f c
#7 f c1
```

| | |
|-----------|------------------|
| date_addr | <i>date_addr</i> |
|-----------|------------------|

Description

Allow to add or subtract two dates that have the same time unit or not

Usage

```
date_addr(  
  date1,  
  date2,  
  add = FALSE,  
  frmt1,  
  frmt2 = frmt1,  
  sep_ = "-",  
  convert_to = "dmy"  
)
```

Arguments

- date1 is the date from which the second date will be added or subtracted
- date2 is the date that will be added or will subtract date1
- add equals to FALSE if you want date1 - date2 and TRUE if you want date1 + date2
- frmt1 is the format of date1 (snhdmy) (second, minute, hour, day, monthn year)
- frmt2 is the format of date2 (snhdmy)
- sep_ is the separator of date1 and date2
- convert_to is the format of the outputed date

Examples

```
print(date_addr(date1="25-02", date2="58-12-08", frmt1="dm", frmt2="shd", sep_="-",  
  convert_to="dmy"))  
  
#[1] "18-2-0"  
  
print(date_addr(date1="25-02", date2="58-12-08", frmt1="dm", frmt2="shd", sep_="-",  
  convert_to="dmy", add=TRUE))  
  
#[1] "3-3-0"  
  
print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",  
  convert_to="dmy", add=TRUE))  
  
#[1] "27-3-2024"
```

```

print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
               convert_to="dmy", add=False))

#[1] "23-1-2024"

print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
               convert_to="n", add=False))

#[1] "1064596320"

print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
               convert_to="s", add=False))

#[1] "63875779200"

```

```

date_converter_reverse
      date_converter_reverse

```

Description

Allow to convert single date value like 2025.36 year to a date like second/minutehour/day/month/year (snhdmy)

Usage

```
date_converter_reverse(inpt_date, convert_to = "dmy", frmt = "y", sep_ = "-")
```

Arguments

| | |
|------------|---|
| inpt_date | is the input date |
| convert_to | is the date format the input date will be converted |
| frmt | is the time unit of the input date |
| sep_ | is the separator of the outputed date |

Examples

```

print(date_converter_reverse(inpt_date="2024.929", convert_to="hmy", frmt="y", sep_="-"))

#[1] "110-11-2024"

print(date_converter_reverse(inpt_date="2024.929", convert_to="dmy", frmt="y", sep_="-"))

#[1] "4-11-2024"

print(date_converter_reverse(inpt_date="2024.929", convert_to="hdmy", frmt="y", sep_="-"))

#[1] "14-4-11-2024"

print(date_converter_reverse(inpt_date="2024.929", convert_to="dhym", frmt="y", sep_="-"))

```

```
# [1] "4-14-2024-11"
```

| | |
|--------------|---------------------|
| datf_appendr | <i>datf_appendr</i> |
|--------------|---------------------|

Description

Allow to append all columns of a dataframe in a vector.

Usage

```
datf_appendr (inpt_datf)
```

Arguments

inpt_datf is the input dataframe

Examples

```
datf_teste <- data.frame("col1" = c(1:5), "col2" = c(5:1))  
  
print(datf_appendr(inpt_datf = datf_teste))  
  
[1] 1 2 3 4 5 5 4 3 2 1
```

| | |
|---------------|----------------------|
| datf_appendr2 | <i>datf_appendr2</i> |
|---------------|----------------------|

Description

Allow to append all columns of a dataframe in a vector, specifying the column types ("integer" or "character"), see examples

Usage

```
datf_appendr2 (inpt_datf, chs_type = "integer")
```

Arguments

inpt_datf is the inout dataframe

Examples

```
datf_teste <- data.frame("col1" = c(1:5), "col2" = c(5:1),
  "col3" = c("oui", "oui", "oui", "non", "non"))

print(datf_appendr2(inpt_datf = datf_teste, chs_type = "integer"))

[1] 1 2 3 4 5 5 4 3 2 1

print(datf_appendr2(inpt_datf = datf_teste, chs_type = "character"))

[1] "oui" "oui" "oui" "non" "non"
```

| | |
|--------------|---------------------|
| datf_insertr | <i>datf_insertr</i> |
|--------------|---------------------|

Description

Insert rows after certain indexes, see examples

Usage

```
datf_insertr(inpt_datf, ids_vec, val_l)
```

Arguments

| | |
|-----------|---|
| inpt_datf | is the input dataframe |
| ids_vec | is the ids where the rows has to be inserted after |
| val_l | is a list containing all the rows (vector) to be inserted, linked to every index within ids_vec |

Examples

```
datf <- data.frame(c(1:4), c(4:1))
print(datf)

  c.1.4. c.4.1.
1      1      4
2      2      3
3      3      2
4      4      1

print(datf_insertr(inpt_datf = datf, ids_vec = c(1, 3), val_l = list(c("non", "non"), c("oui", "oui"))))

  c.1.4. c.4.1.
1      1      4
2    non    non
21     2      3
3      3      2
5    oui    oui
4      4      1

print(datf_insertr(inpt_datf = datf, ids_vec = c(1, 3), val_l = list(c("non", "non"))))
```

| | c.1.4. | c.4.1. |
|----|--------|--------|
| 1 | 1 | 4 |
| 2 | non | non |
| 21 | 2 | 3 |
| 3 | 3 | 2 |
| 5 | non | non |
| 4 | 4 | 1 |

| datf_row_appendr | <i>datf_row_appendr</i> |
|------------------|-------------------------|
|------------------|-------------------------|

Description

Allow to append all rows of a dataframe in a vector.

Usage

```
datf_row_appendr(inpt_datf)
```

Arguments

`inpt_datf` is the input dataframe

Examples

```
datf_teste <- data.frame("col1" = c(1:5), "col2" = c(5:1))
print(datf_appendr(inpt_datf = datf_teste))
```

| col1 | col2 | col1 | col2 | col1 | col2 | col1 | col2 | col1 | col2 |
|------|------|------|------|------|------|------|------|------|------|
| 1 | 5 | 2 | 4 | 3 | 3 | 4 | 2 | 5 | 1 |

| datf_row_appendr2 | <i>datf_row_appendr2</i> |
|-------------------|--------------------------|
|-------------------|--------------------------|

Description

Allow to append all rows of a dataframe in a vector, specifying the column types ("integer" or "character"), see examples

Usage

```
datf_row_appendr2(inpt_datf, chs_type = "integer")
```

Arguments

`inpt_datf` is the inout dataframe

Examples

```
datf_teste <- data.frame("col1" = c(1:5), "col2" = c(5:1),
  "col3" = c("oui", "oui", "oui", "non", "non"))

print(datf_row_appendr2(inpt_datf = datf_teste, chs_type = "integer"))

NULL

print(datf_row_appendr2(inpt_datf = datf_teste, chs_type = "character"))

col1 col2 col3 col1 col2 col3 col1 col2 col3 col1 col2 col3 col1
"1" "5" "oui" "2" "4" "oui" "3" "3" "oui" "4" "2" "non" "5"
col2 col3
"1" "non"
```

| | |
|----------|-----------------|
| dcr_untl | <i>dcr_untl</i> |
|----------|-----------------|

Description

Allow to get the final value of a incremental or decremental loop.

Usage

```
dcr_untl(strt_val, cr_val, stop_val = 0)
```

Arguments

- strt_val is the start value
- cr_val is the incremental (or decremental value)
- stop_val is the value where the loop has to stop

Examples

```
print(dcr_untl(strt_val=50, cr_val=-5, stop_val=5))

#[1] 9

print(dcr_untl(strt_val=50, cr_val=5, stop_val=450))

#[1] 80
```

| | |
|---------|----------------|
| dcr_val | <i>dcr_val</i> |
|---------|----------------|

Description

Allow to get the end value after an incremental (or decremental loop)

Usage

```
dcr_val(strt_val, cr_val, stop_val = 0)
```

Arguments

| | |
|----------|---|
| strt_val | is the start value |
| cr_val | is the incremental or decremental value |
| stop_val | is the value the loop has to stop |

Examples

```
print(dcr_val(strt_val=50, cr_val=-5, stop_val=5))  
#[1] 5  
print(dcr_val(strt_val=47, cr_val=-5, stop_val=5))  
#[1] 7  
print(dcr_val(strt_val=50, cr_val=5, stop_val=450))  
#[1] 450  
print(dcr_val(strt_val=53, cr_val=5, stop_val=450))  
#[1] 448
```

| | |
|-------------------|--------------------------|
| depth_pairs_findr | <i>depth_pairs_findr</i> |
|-------------------|--------------------------|

Description

Takes the pair vector as an input and associate to each pair a level of depth, see examples

Usage

```
depth_pairs_findr(inpt)
```

Arguments

| | |
|------|--------------------|
| inpt | is the pair vector |
|------|--------------------|

Examples

```
print(depth_pairs_findr(c(1, 1, 2, 3, 3, 4, 4, 2, 5, 6, 7, 7, 6, 5)))

[1] 1 1 1 2 2 2 2 1 1 2 3 3 2 1
```

| | |
|-----------|------------------|
| diff_datf | <i>diff_datf</i> |
|-----------|------------------|

Description

Returns a vector with the coordinates of the cell that are not equal between 2 dataframes (row, column).

Usage

```
diff_datf(datf1, datf2)
```

Arguments

| | |
|-------|--------------------------|
| datf1 | is an an input dataframe |
| datf2 | is an an input dataframe |

Examples

```
datf1 <- data.frame(c(1:6), c("oui", "oui", "oui", "oui", "oui", "oui"), c(6:1))

datf2 <- data.frame(c(1:7), c("oui", "oui", "oui", "oui", "non", "oui", "zz"))

print(diff_datf(datf1=datf1, datf2=datf2))

#[1] 5 1 5 2
```

| | |
|-----------------------|------------------------------|
| dynamic_idx_converttr | <i>dynamic_idx_converttr</i> |
|-----------------------|------------------------------|

Description

Allow to convert the indices of vector ('from_v_ids') which are related to the each characters of a vector (from_v_val), to fit the newly established characters of the vector from_v_val, see examples.

Usage

```
dynamic_idx_converttr(from_v_ids, from_v_val)
```


Arguments

from_v_ids is the input vector of indices

from_v_val is the input vector of elements, or just the total number of characters of the elementsq in the vector

Examples

```
print(dynamic_idx_converter(from_v_ids = c(1, 5), from_v_val = c("oui", "no", "ouI")))

[1] 1 2

print(dynamic_idx_converter(from_v_ids = c(1, 6), from_v_val = c("oui", "no", "ouI")))

[1] 1 3
```

```
elements_equalifier
      elements_equalifier
```

Description

Takes an input vector with elements that have different occurrence, and output a vector with all these elements with the same number of occurrence, see examples

Usage

```
elements_equalifier(inpt_v, until = 3)
```

Arguments

inpt_v is the input vector

until is how many times each elements will be in the output vector

Examples

```
print(elements_equalifier(letters, until = 2))

[1] "a" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l" "m" "n" "o" "p" "q" "r" "s"
[20] "t" "u" "v" "w" "x" "y" "z" "a" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l"
[39] "m" "n" "o" "p" "q" "r" "s" "t" "u" "v" "w" "x" "y" "z"

print(elements_equalifier(c(letters, letters[-1]), until = 2))

[1] "a" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l" "m" "n" "o" "p" "q" "r" "s"
[20] "t" "u" "v" "w" "x" "y" "z" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l" "m"
[39] "n" "o" "p" "q" "r" "s" "t" "u" "v" "w" "x" "y" "z" "a"
```

| | |
|-------------|--------------------|
| equalizer_v | <i>equalizer_v</i> |
|-------------|--------------------|

Description

Takes a vector of character as an input and returns a vector with the elements at the same size. The size can be chosen via depth parameter.

Usage

```
equalizer_v(inpt_v, depth = "max", default_val = "?")
```

Arguments

| | |
|-------------|--|
| inpt_v | is the input vector containing all the characters |
| depth | is the depth parameter, defaults to "max" which means that it is equal to the character number of the element(s) in inpt_v that has the most |
| default_val | is the default value that will be added to the output characters if those has an inferior length (characters) than the value of depth |

Examples

```
print(equalizer_v(inpt_v=c("aa", "zzz", "q"), depth=2))

#[1] "aa" "zz" "q?"

print(equalizer_v(inpt_v=c("aa", "zzz", "q"), depth=12))

#[1] "aa?????????" "zzz?????????" "q?????????"
```

| | |
|----------------|-----------------------|
| extract_normal | <i>extract_normal</i> |
|----------------|-----------------------|

Description

Allow to extract values that fits a normal distribution from any kind of dataset, see examples and parameters

Usage

```
extract_normal(
  inpt_datf,
  mean,
  sd,
  accuracy,
  round_value = 1,
  normalised = FALSE,
  n = NA,
  tries = 3
)
```

Arguments

| | |
|-------------|---|
| inpt_datf | is the input dataset as a dataframe, values/modalities are in the first column and frequency (not normalised) is in the second column |
| mean | is the mean of the target normal distribution |
| sd | is the standard deviation of the target normal distribution |
| accuracy | is how much of a difference between the points of the targeted normal distribution and the actual points is tolerated |
| round_value | is the round value for the normal distribution used under the hood to compare the dataset and extract the best points, defaults to 1 |
| normalised | is if the input frequency is divided by n, if TRUE the parameter n must be filled |
| n | is the number of points |
| tries | is how many normal distributions are used under the hood to compare their points to the those in the input dataset, defaults to 3. The higher it is, the higher the number of different points from the input dataset will be in accordance for the normal distribution the function tries to build from the dataset. It does not increase by a lot but can be non-negligible and note that the higher the number of tries is, the higher the execution time of the function will be. |

Examples

```
sample_val <- round(rnorm(n = 72000, mean = 12, sd = 2), 1)
sample_freq <- unique_total(sample_val)
sample_qual <- infinite_char_seq(n = length(sample_freq))
datf_test <- data.frame(sample_qual, sample_freq)
n <- nrow(datf_test)
print(datf_test)
```

| | sample_qual | sample_freq |
|----|-------------|-------------|
| 1 | a | 72 |
| 2 | b | 1155 |
| 3 | c | 1255 |
| 4 | d | 743 |
| 5 | e | 696 |
| 6 | f | 1028 |
| 7 | g | 1160 |
| 8 | h | 1219 |
| 9 | i | 1353 |
| 10 | j | 1336 |
| 11 | k | 1308 |
| 12 | l | 485 |
| 13 | m | 1306 |
| 14 | n | 1429 |
| 15 | o | 623 |
| 16 | p | 1172 |
| 17 | q | 1054 |
| 18 | r | 999 |
| 19 | s | 125 |
| 20 | t | 1461 |
| 21 | u | 1430 |
| 22 | v | 341 |
| 23 | w | 1453 |
| 24 | x | 427 |
| 25 | y | 869 |

| | | |
|----|----|------|
| 26 | z | 1395 |
| 27 | aa | 841 |
| 28 | ab | 952 |
| 29 | ac | 246 |
| 30 | ad | 468 |
| 31 | ae | 237 |
| 32 | af | 555 |
| 33 | ag | 1297 |
| 34 | ah | 571 |
| 35 | ai | 349 |
| 36 | aj | 773 |
| 37 | ak | 1086 |
| 38 | al | 1281 |
| 39 | am | 1471 |
| 40 | an | 1236 |
| 41 | ao | 394 |
| 42 | ap | 1433 |
| 43 | aq | 1328 |
| 44 | ar | 976 |
| 45 | as | 640 |
| 46 | at | 308 |
| 47 | au | 698 |
| 48 | av | 864 |
| 49 | aw | 1346 |
| 50 | ax | 1349 |
| 51 | ay | 6 |
| 52 | az | 1071 |
| 53 | ba | 248 |
| 54 | bb | 929 |
| 55 | bc | 925 |
| 56 | bd | 452 |
| 57 | be | 207 |
| 58 | bf | 546 |
| 59 | bg | 62 |
| 60 | bh | 107 |
| 61 | bi | 1184 |
| 62 | bj | 739 |
| 63 | bk | 624 |
| 64 | bl | 850 |
| 65 | bm | 1408 |
| 66 | bn | 620 |
| 67 | bo | 202 |
| 68 | bp | 10 |
| 69 | bq | 700 |
| 70 | br | 397 |
| 71 | bs | 1291 |
| 72 | bt | 178 |
| 73 | bu | 397 |
| 74 | bv | 1089 |
| 75 | bw | 1301 |
| 76 | bx | 328 |
| 77 | by | 1348 |
| 78 | bz | 97 |
| 79 | ca | 1452 |
| 80 | cb | 4 |
| 81 | cc | 100 |
| 82 | cd | 593 |

| | | |
|-----|----|------|
| 83 | ce | 503 |
| 84 | cf | 164 |
| 85 | cg | 32 |
| 86 | ch | 259 |
| 87 | ci | 1089 |
| 88 | cj | 249 |
| 89 | ck | 165 |
| 90 | cl | 42 |
| 91 | cm | 143 |
| 92 | cn | 467 |
| 93 | co | 347 |
| 94 | cp | 143 |
| 95 | cq | 69 |
| 96 | cr | 18 |
| 97 | cs | 290 |
| 98 | ct | 55 |
| 99 | cu | 141 |
| 100 | cv | 86 |
| 101 | cw | 303 |
| 102 | cx | 88 |
| 103 | cy | 16 |
| 104 | cz | 213 |
| 105 | da | 3 |
| 106 | db | 75 |
| 107 | dc | 32 |
| 108 | dd | 66 |
| 109 | de | 105 |
| 110 | df | 34 |
| 111 | dg | 56 |
| 112 | dh | 17 |
| 113 | di | 22 |
| 114 | dj | 120 |
| 115 | dk | 54 |
| 116 | dl | 9 |
| 117 | dm | 8 |
| 118 | dn | 36 |
| 119 | do | 20 |
| 120 | dp | 26 |
| 121 | dq | 54 |
| 122 | dr | 8 |
| 123 | ds | 10 |
| 124 | dt | 4 |
| 125 | du | 53 |
| 126 | dv | 29 |
| 127 | dw | 1 |
| 128 | dx | 8 |
| 129 | dy | 10 |
| 130 | dz | 4 |
| 131 | ea | 22 |
| 132 | eb | 9 |
| 133 | ec | 17 |
| 134 | ed | 55 |
| 135 | ee | 21 |
| 136 | ef | 6 |
| 137 | eg | 4 |
| 138 | eh | 3 |
| 139 | ei | 7 |

```

140      ej      1
141      ek      4
142      el      2
143      em      5
144      en      4
145      eo      1
146      ep      2
147      eq      3
148      er      8
149      es      4
150      et      3
151      eu      3
152      ev      2
153      ew      2
154      ex      2
155      ey      1
156      ez      2
157      fa      2
158      fb      1

```

```

teste <- extract_normal(inpt_datf = datf_test,
                        mean = 10,
                        sd = 2,
                        accuracy = .1,
                        round_value = 1,
                        normalised = FALSE,
                        tries = 5)

```

```
print(length(unique(teste[, 1])) / n)
```

```

[1] 0.2848101 # so nearly 28.5 % of the different points were in
#accordance with the construction of the target normal distribution

```

```
print(teste)
```

```

      values      frequency
1      dw 0.0001406866
2      dw 0.0001406866
3      dw 0.0001406866
4      el 0.0002813731
5      el 0.0002813731
6      el 0.0002813731
7      el 0.0002813731
8      da 0.0004220597
9      da 0.0004220597
10     cb 0.0005627462
11     cb 0.0005627462
12     em 0.0007034328
13     ay 0.0008441193
14     ay 0.0008441193
15     ei 0.0009848059
16     ei 0.0009848059
17     ei 0.0009848059
18     dm 0.0011254924
19     bp 0.0014068655
20     cy 0.0022509848
21     cy 0.0022509848

```

| | | |
|----|----|--------------|
| 22 | cy | 0.0022509848 |
| 23 | dh | 0.0023916714 |
| 24 | dh | 0.0023916714 |
| 25 | cr | 0.0025323579 |
| 26 | ee | 0.0029544176 |
| 27 | di | 0.0030951041 |
| 28 | dp | 0.0036578503 |
| 29 | dp | 0.0036578503 |
| 30 | cg | 0.0045019696 |
| 31 | cg | 0.0045019696 |
| 32 | df | 0.0047833427 |
| 33 | dn | 0.0050647158 |
| 34 | cl | 0.0059088351 |
| 35 | cl | 0.0059088351 |
| 36 | du | 0.0074563872 |
| 37 | du | 0.0074563872 |
| 38 | dg | 0.0078784468 |
| 39 | dg | 0.0078784468 |
| 40 | bg | 0.0087225661 |
| 41 | bg | 0.0087225661 |
| 42 | dd | 0.0092853123 |
| 43 | cq | 0.0097073720 |
| 44 | cq | 0.0097073720 |
| 45 | a | 0.0101294316 |
| 46 | cv | 0.0120990433 |
| 47 | cx | 0.0123804164 |
| 48 | cx | 0.0123804164 |
| 49 | bz | 0.0136465954 |
| 50 | cc | 0.0140686550 |
| 51 | bh | 0.0150534609 |
| 52 | bh | 0.0150534609 |
| 53 | dj | 0.0168823860 |
| 54 | s | 0.0175858188 |
| 55 | s | 0.0175858188 |
| 56 | cm | 0.0201181767 |
| 57 | cf | 0.0230725943 |
| 58 | ck | 0.0232132808 |
| 59 | bt | 0.0250422060 |
| 60 | bt | 0.0250422060 |
| 61 | be | 0.0291221159 |
| 62 | be | 0.0291221159 |
| 63 | cz | 0.0299662352 |
| 64 | cz | 0.0299662352 |
| 65 | be | 0.0291221159 |
| 66 | bo | 0.0284186832 |
| 67 | bt | 0.0250422060 |
| 68 | ck | 0.0232132808 |
| 69 | ck | 0.0232132808 |
| 70 | cm | 0.0201181767 |
| 71 | cu | 0.0198368036 |
| 72 | s | 0.0175858188 |
| 73 | dj | 0.0168823860 |
| 74 | bh | 0.0150534609 |
| 75 | bh | 0.0150534609 |
| 76 | de | 0.0147720878 |
| 77 | bz | 0.0136465954 |
| 78 | bz | 0.0136465954 |

```

79      cx 0.0123804164
80      cv 0.0120990433
81      db 0.0105514913
82      a  0.0101294316
83      cq 0.0097073720
84      dd 0.0092853123
85      dd 0.0092853123
86      bg 0.0087225661
87      bg 0.0087225661
88      dg 0.0078784468
89      dk 0.0075970737
90      du 0.0074563872
91      cl 0.0059088351
92      cl 0.0059088351
93      dn 0.0050647158
94      df 0.0047833427
95      df 0.0047833427
96      cg 0.0045019696
97      dv 0.0040799100
98      dp 0.0036578503
99      di 0.0030951041
100     di 0.0030951041
101     ee 0.0029544176
102     cr 0.0025323579
103     dh 0.0023916714
104     cy 0.0022509848
105     cy 0.0022509848
106     cy 0.0022509848
107     cy 0.0022509848
108     dl 0.0012661790
109     dm 0.0011254924
110     ei 0.0009848059
111     ei 0.0009848059
112     ay 0.0008441193
113     ay 0.0008441193
114     em 0.0007034328
115     em 0.0007034328
116     cb 0.0005627462
117     cb 0.0005627462
118     da 0.0004220597
119     da 0.0004220597
120     el 0.0002813731
121     el 0.0002813731
122     el 0.0002813731
123     el 0.0002813731
124     dw 0.0001406866
125     dw 0.0001406866
126     dw 0.0001406866

```

extrt_only_v

extrt_only_v

Description

Returns the elements from a vector "inpt_v" that are in another vector "pttrn_v"

Usage

```
extrt_only_v(inpt_v, pttrn_v)
```

Arguments

`inpt_v` is the input vector

`pttrn_v` is the vector contining all the elements that can be in `inpt_v`

Examples

```
print(extrt_only_v(inpt_v=c("oui", "non", "peut", "oo", "ll", "oui", "non", "oui", "oui"),
  pttrn_v=c("oui")))

#[1] "oui" "oui" "oui" "oui"
```

fillr

fillr

Description

Allow to fill a vector by the last element n times

Usage

```
fillr(inpt_v, ptrn_fill = "\\..\\.\\.\\.\\d")
```

Arguments

`inpt_v` is the input vector

`ptrn_fill` is the pattern used to detect where the function has to fill the vector by the last element n times. It defaults to "...\\d" where "\\d" is the regex for an int value. So this paramater has to have "\\d" which designates n.

Examples

```
print(fillr(c("a", "b", "...3", "c")))

#[1] "a" "b" "b" "b" "b" "c"
```

| | |
|--------------|---------------------|
| fixer_nest_v | <i>fixer_nest_v</i> |
|--------------|---------------------|

Description

Retur the elements of a vector "wrk_v" (1) that corresponds to the pattern of elements in another vector "cur_v" (2) according to another vector "pttrn_v" (3) that contains the patterof elements.

Usage

```
fixer_nest_v(cur_v, pttrn_v, wrk_v)
```

Arguments

| | |
|---------|--|
| cur_v | is the input vector |
| pttrn_v | is the vector containing all the patterns that may be contained in cur_v |
| wrk_v | is a vector containing all the indexes of cur_v taken in count in the function |

Examples

```
print(fixer_nest_v(cur_v=c("oui", "non", "peut-etre", "oui", "non", "peut-etre"),
  pttrn_v=c("oui", "non", "peut-etre"),
  wrk_v=c(1, 2, 3, 4, 5, 6)))

#[1] 1 2 3 4 5 6

print(fixer_nest_v(cur_v=c("oui", "non", "peut-etre", "oui", "non", "peut-etre"),
  pttrn_v=c("oui", "non"),
  wrk_v=c(1, 2, 3, 4, 5, 6)))

#[1] 1 2 NA 4 5 NA
```

| | |
|----------|-----------------|
| fold_rec | <i>fold_rec</i> |
|----------|-----------------|

Description

Allow to get all the files recursively from a path according to an end and start depth value. If you want to have an other version of this function that uses a more sophisticated algorith (which can be faster), check file_rec2. Depth example: if i have dir/dir2/dir3, dir/dir2b/dir3b, i have a depth equal to 3

Usage

```
fold_rec(xmax, xmin = 1, pathc = ".")
```

Arguments

| | |
|-------|--------------------------|
| xmax | is the end depth value |
| xmin | is the start depth value |
| pathc | is the reference path |

| | |
|-----------|------------------|
| fold_rec2 | <i>fold_rec2</i> |
|-----------|------------------|

Description

Allow to find the directories and the subdirectories with a specified end and start depth value from a path. This function might be more powerfull than file_rec because it uses a custom algorythm that does not nee to perform a full recursive search before tuning it to only find the directories with a good value of depth. Depth example: if i have dir/dir2/dir3, dir/dir2b/dir3b, i have a depth equal to 3

Usage

```
fold_rec2(xmax, xmin = 1, pathc = ".")
```

Arguments

| | |
|-------|---|
| xmax | is the depth value |
| xmin | is the minimum value of depth |
| pathc | is the reference path, from which depth value is equal to 1 |

| | |
|-------------|--------------------|
| format_date | <i>format_date</i> |
|-------------|--------------------|

Description

Allow to convert xx-month-xxxx date type to xx-xx-xxxx

Usage

```
format_date(f_dialect, sentc, sep_in = "-", sep_out = "-")
```

Arguments

| | |
|-----------|--|
| f_dialect | are the months from the language of which the month come |
| sentc | is the date to convert |
| sep_in | is the separator of the dat input (default is "-") |
| sep_out | is the separator of the converted date (default is "-") |

Examples

```
print(format_date(f_dialect=c("janvier", "février", "mars", "avril", "mai", "juin",
"juillet", "aout", "septembre", "octobre", "novembre", "décembre"), sentc="11-septembre-2
#[1] "11-09-2023"
```

| | |
|---------|----------------|
| geo_min | <i>geo_min</i> |
|---------|----------------|

Description

Return a dataframe containing the nearest geographical points (row) according to established geographical points (column).

Usage

```
geo_min(inpt_datf, established_datf)
```

Arguments

`inpt_datf` is the input dataframe of the set of geographical points to be classified, its first column is for latitude, the second for the longitude and the third, if exists, is for the altitude. Each point is one row.

`established_datf` is the dataframe containing the coordinates of the established geographical points

Examples

```
in_ <- data.frame(c(11, 33, 55), c(113, -143, 167))

in2_ <- data.frame(c(12, 55), c(115, 165))

print(geo_min(inpt_datf=in_, established_datf=in2_))

#           X1           X2
#1    245.266         NA
#2  24200.143         NA
#3           NA  127.7004

in_ <- data.frame(c(51, 23, 55), c(113, -143, 167), c(6, 5, 1))

in2_ <- data.frame(c(12, 55), c(115, 165), c(2, 5))

print(geo_min(inpt_datf=in_, established_datf=in2_))

#           X1           X2
#1           NA  4343.720
#2  26465.63         NA
#3           NA  5825.517
```

get_rec

get_rec

Description

Allow to get the value of directorie depth from a path.

Usage

```
get_rec(pathc = ".")
```

Arguments

pathc is the reference path example: if i have dir/dir2/dir3, dir/dir2b/dir3b, i have a depth equal to 3

globe

globe

Description

Allow to calculate the distances between a set of geographical points and another established geographical point. If the altitude is not filled, so the result returned won't take in count the altitude.

Usage

```
globe(lat_f, long_f, alt_f = NA, lat_n, long_n, alt_n = NA)
```

Arguments

lat_f is the latitude of the established geographical point
long_f is the longitude of the established geographical point
alt_f is the altitude of the established geographical point, defaults to NA
lat_n is a vector containing the latitude of the set of points
long_n is a vector containing the longitude of the set of points
alt_n is a vector containing the altitude of the set of points, defaults to NA

Examples

```
print(globe(lat_f=23, long_f=112, alt_f=NA, lat_n=c(2, 82), long_n=c(165, -55), alt_n=NA))
#[1] 6342.844 7059.080

print(globe(lat_f=23, long_f=112, alt_f=8, lat_n=c(2, 82), long_n=c(165, -55), alt_n=c(8,
#[1] 6342.844 7059.087
```

| | |
|---------------|----------------------|
| glue_groupr_v | <i>glue_groupr_v</i> |
|---------------|----------------------|

Description

Takes an input vector and returns the same vector unlike that certain elements will be glued as an unique element according to thoses designated in a special vector, see examples.

Usage

```
glue_groupr_v(inpt_v, group_v = c(), until)
```

Arguments

| | |
|--------|--|
| inpt_v | is the input vector |
| is | a vector containing all the elements that will be glued in the output vector |

Examples

```
print(glue_groupr_v(inpt_v = c("o", "-", "-", "u", "i", "-", "n",
  "o", "-", "-", "-", "zz", "/", "/"), group_v = c("-", "/")))

[1] "o"   "--"  "u"   "i"   "-"   "n"   "o"   "---" "zz"  "/"

print(glue_groupr_v(inpt_v = c("o", "-", "-", "u", "i", "-", "n",
  "o", "-", "-", "-", "-", "zz", "/", "/"), group_v = c("-", "/"), until = 3))

[1] "o"   "--"  "u"   "i"   "-"   "n"   "o"   "---" "-"   "zz"  "/"

print(glue_groupr_v(inpt_v = c("o", "-", "-", "u", "i", "-", "n",
  "o", "-", "-", "-", "-", "zz", "/", "/"), group_v = c("-", "/"), until = 2))

[1] "o"   "--"  "u"   "i"   "-"   "n"   "o"   "--" "--" "zz"  "/"
```

| | |
|----------|-----------------|
| grep_all | <i>grep_all</i> |
|----------|-----------------|

Description

Allow to perform a grep function on multiple input elements

Usage

```
grep_all(inpt_v, pattern_v)
```

Arguments

| | |
|-----------|---|
| inpt_v | is the input vectors to grep elements from |
| pattern_v | is a vector containing the patterns to grep |

Examples

```
print(grep_all(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
               pattern_v = c("z", "4")))

[1] 15 23 25  4 14 19

print(grep_all(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
               pattern_v = c("z", "^4$")))

[1] 15 23 25  4 19

print(grep_all(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
               pattern_v = c("z")))

[1] 15 23 25
```

```
grep_all2
```

```
grep_all2
```

Description

Performs the `grep_all` function with another algorithm, potentially faster

Usage

```
grep_all2(inpt_v, pattern_v)
```

Arguments

`inpt_v` is the input vectors to grep elements from
`pattern_v` is a vector containing the patterns to grep

Examples

```
print(grep_all2(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
                pattern_v = c("z", "4")))

[1] 15 23 25  4 14 19

print(grep_all2(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
                pattern_v = c("z", "^4$")))

[1] 15 23 25  4 19

print(grep_all2(inpt_v = c(1:14, "z", 1:7, "z", "a", "z"),
                pattern_v = c("z")))

[1] 15 23 25
```

| | |
|-------------|--------------------|
| groupr_datf | <i>groupr_datf</i> |
|-------------|--------------------|

Description

Allow to create groups from a dataframe. Indeed, you can create conditions that lead to a flag value for each cell of the input dataframe according to the cell value. This function is based on `see_datf` and `nestr_datf2` functions.

Usage

```
groupr_datf(
  inpt_datf,
  condition_lst,
  val_lst,
  conjunction_lst,
  rtn_val_pos = c()
)
```

Arguments

`inpt_datf` is the input dataframe

`condition_lst` is a list containing all the condition as a vector for each group

`val_lst` is a list containing all the values associated with `condition_lst` as a vector for each group

`conjunction_lst` is a list containing all the conjunctions associated with `condition_lst` and `val_lst` as a vector for each group

`rtn_val_pos` is a vector containing all the group flag value like this ex: `c("flag1", "flag2", "flag3")`

Examples

```
interactive()

datf1 <- data.frame(c(1, 2, 1), c(45, 22, 88), c(44, 88, 33))

val_lst <- list(list(c(1), c(1)), list(c(2)), list(c(44, 88)))

condition_lst <- list(c(">", "<"), c("%%"), c("==", "=="))

conjunction_lst <- list(c("|"), c(), c("|"))

rtn_val_pos <- c("+", "++", "+++")

print(groupr_datf(inpt_datf=datf1, val_lst=val_lst, condition_lst=condition_lst,
  conjunction_lst=conjunction_lst, rtn_val_pos=rtn_val_pos))

#      X1  X2  X3
#1 <NA>   +  +++
#2   ++  ++  +++
```



```
#3 <NA> +++ +
```

gsub_mult

gsub_mult

Description

Performs a gsub operation with n patterns and replacements.

Usage

```
gsub_mult(inpt_v, pattern_v = c(), replacement_v = c())
```

Arguments

`inpt_v` is a vector containing all the elements that contains expressions to be substituted

`pattern_v` is a vector containing all the patterns to be substituted in any elements of `inpt_v`

`replacement_v` is a vector containing the expression that are going to substitute those provided by `pattern_v`

Examples

```
print(gsub_mult(inpt_v = c("X and Y programming languages are great", "More X, more X!"),
  pattern_v = c("X", "Y", "Z"),
  replacement_v = c("C", "R", "GO")))
[1] "C and R programming languages are great"
[2] "More C, more C!"
```

historic_sequence *historic_sequence*

Description

Allow to perform a pivot wider on a sequential dataset (here the type is dataframe), each variable will be duplicated in a column to show the value to this variable at n - 1 for each individual, see examples.

Usage

```
historic_sequence(inpt_datf, bf_ = 1)
```

Arguments

`inpt_datf` is the input dataframe

`bf_` is the number of previous value of the individual it will search for, see examples

Examples

```

set.seed(123)
var1 <- round(runif(n = 14, min = 100, max = 122))
set.seed(123)
var2 <- round(runif(n = 14, min = 14, max = 20))

datf <- data.frame("ids" = c(20, 20, 20, 20, 19, 19, 19, 18, 18, 18, 18,
                             17, 17, 17),
                  "individual" = c("oui", "non", "peut1", "peut2",
                                   "oui", "peut1", "peut2"),
                  "var1" = var1,
                  "var2" = var2)

```

```
print(datf)
```

| | ids | individual | var1 | var2 |
|----|-----|------------|------|------|
| 1 | 20 | oui | 106 | 16 |
| 2 | 20 | non | 117 | 19 |
| 3 | 20 | peut1 | 109 | 16 |
| 4 | 20 | peut2 | 119 | 19 |
| 5 | 19 | oui | 121 | 20 |
| 6 | 19 | peut1 | 101 | 14 |
| 7 | 19 | peut2 | 112 | 17 |
| 8 | 18 | oui | 120 | 19 |
| 9 | 18 | non | 112 | 17 |
| 10 | 18 | peut1 | 110 | 17 |
| 11 | 18 | peut2 | 121 | 20 |
| 12 | 17 | oui | 110 | 17 |
| 13 | 17 | peut1 | 115 | 18 |
| 14 | 17 | peut2 | 113 | 17 |

```
historic_sequence(inpt_datf = datf, bf_ = 2)
```

| | id_seq | individual | var1-1 | var1-2 | var2-1 | var2-2 |
|---|--------|------------|--------|--------|--------|--------|
| 1 | 20 | oui | 121 | 120 | 20 | 19 |
| 2 | 20 | non | NA | 112 | NA | 17 |
| 3 | 20 | peut1 | 101 | 110 | 14 | 17 |
| 4 | 20 | peut2 | 112 | 121 | 17 | 20 |
| 5 | 19 | oui | 120 | 110 | 19 | 17 |
| 6 | 19 | peut1 | 110 | 115 | 17 | 18 |
| 7 | 19 | peut2 | 121 | 113 | 20 | 17 |

```
historic_sequence(inpt_datf = datf, bf_ = 3)
```

| | id_seq | individual | var1-1 | var1-2 | var1-3 | var2-1 | var2-2 | var2-3 |
|---|--------|------------|--------|--------|--------|--------|--------|--------|
| 1 | 20 | oui | 121 | 120 | 110 | 20 | 19 | 17 |
| 2 | 20 | non | NA | 112 | NA | NA | 17 | NA |
| 3 | 20 | peut1 | 101 | 110 | 115 | 14 | 17 | 18 |
| 4 | 20 | peut2 | 112 | 121 | 113 | 17 | 20 | 17 |

Description

Allow to get how much a sequence of numbers fit a normal distribution with chosen parameters, see examples

Usage

```
how_normal(inpt_datf, normalised = TRUE, mean = 0, sd = 1)
```

Arguments

| | |
|------------|---|
| inpt_datf | is the input dataframe containing all the values in the first column and their frequency (normalised or no), in the second column |
| normalised | is a boolean, takes TRUE if the frequency for each value is divided by n, FALSE if not |
| mean | is the mean of the normal distribution that the dataset tries to fit |
| sd | is the standard deviation of the normal distribution the dataset tries to fit |

Examples

```
sample_val <- round(rnorm(n = 12000, mean = 6, sd = 1.25), 1)
sample_freq <- unique_total(sample_val)
datf_test <- data.frame(unique(sample_val), sample_freq)
print(datf_test)
```

| | unique.sample_val. | sample_freq |
|----|--------------------|-------------|
| 1 | 6.9 | 306 |
| 2 | 8.3 | 63 |
| 3 | 7.7 | 148 |
| 4 | 5.6 | 363 |
| 5 | 6.5 | 349 |
| 6 | 4.6 | 202 |
| 7 | 6.6 | 324 |
| 8 | 6.7 | 335 |
| 9 | 6.0 | 406 |
| 10 | 5.7 | 365 |
| 11 | 7.9 | 109 |
| 12 | 6.2 | 420 |
| 13 | 5.9 | 386 |
| 14 | 4.5 | 185 |
| 15 | 5.1 | 326 |
| 16 | 6.1 | 360 |
| 17 | 5.5 | 346 |
| 18 | 6.3 | 375 |
| 19 | 7.4 | 207 |
| 20 | 7.6 | 162 |
| 21 | 4.2 | 129 |
| 22 | 3.9 | 102 |
| 23 | 5.2 | 325 |
| 24 | 2.3 | 7 |
| 25 | 5.8 | 387 |
| 26 | 6.4 | 319 |
| 27 | 9.1 | 21 |
| 28 | 7.0 | 280 |
| 29 | 8.8 | 27 |
| 30 | 4.9 | 218 |

| | | |
|----|------|-----|
| 31 | 8.1 | 98 |
| 32 | 3.0 | 25 |
| 33 | 8.4 | 66 |
| 34 | 4.3 | 160 |
| 35 | 7.2 | 267 |
| 36 | 8.7 | 40 |
| 37 | 5.3 | 313 |
| 38 | 4.1 | 127 |
| 39 | 5.0 | 275 |
| 40 | 4.0 | 119 |
| 41 | 9.3 | 13 |
| 42 | 4.4 | 196 |
| 43 | 6.8 | 313 |
| 44 | 7.1 | 247 |
| 45 | 3.5 | 57 |
| 46 | 7.8 | 139 |
| 47 | 3.6 | 57 |
| 48 | 7.5 | 189 |
| 49 | 7.3 | 215 |
| 50 | 4.7 | 230 |
| 51 | 3.2 | 36 |
| 52 | 9.5 | 8 |
| 53 | 3.8 | 79 |
| 54 | 8.2 | 62 |
| 55 | 5.4 | 343 |
| 56 | 8.5 | 55 |
| 57 | 4.8 | 207 |
| 58 | 3.7 | 79 |
| 59 | 8.6 | 33 |
| 60 | 3.3 | 38 |
| 61 | 3.4 | 43 |
| 62 | 8.9 | 21 |
| 63 | 8.0 | 105 |
| 64 | 3.1 | 23 |
| 65 | 9.0 | 27 |
| 66 | 10.0 | 5 |
| 67 | 2.5 | 10 |
| 68 | 2.9 | 16 |
| 69 | 9.7 | 7 |
| 70 | 2.7 | 11 |
| 71 | 10.5 | 1 |
| 72 | 9.4 | 13 |
| 73 | 9.2 | 16 |
| 74 | 2.6 | 16 |
| 75 | 9.9 | 3 |
| 76 | 2.8 | 10 |
| 77 | 2.4 | 10 |
| 78 | 1.9 | 2 |
| 79 | 2.0 | 6 |
| 80 | 10.2 | 2 |
| 81 | 9.6 | 3 |
| 82 | 11.3 | 1 |
| 83 | 1.8 | 1 |
| 84 | 2.2 | 3 |
| 85 | 2.1 | 2 |
| 86 | 1.6 | 1 |
| 87 | 10.6 | 1 |

```

88          9.8          1
89         10.4          1
90          1.7          1

print(how_normal(inpt_datf = datf_test,
                 normalised = FALSE,
                 mean = 6,
                 sd = 1))

[1] 9.003683

print(how_normal(inpt_datf = datf_test,
                 normalised = FALSE,
                 mean = 5,
                 sd = 1))

[1] 9.098484

```

how_unif

how_unif

Description

Allow to see how much a sequence of numbers fit a uniform distribution, see examples

Usage

```
how_unif(inpt_v, normalised = TRUE)
```

Arguments

| | |
|------------|---|
| normalised | is a boolean, takes TRUE if the frequency for each value is divided by n, FALSE if not |
| inpt_datf | is the input dataframe containing all the values in the first column and their frequency at the second column |

Examples

```

sample_val <- round(runif(n = 12000, min = 24, max = 27), 1)
sample_freq <- unique_total(sample_val)
datf_test <- data.frame(unique(sample_val), sample_freq)

print(datf_test)

  unique.sample_val. sample_freq
1          24.4          400
2          24.8          379
3          25.5          414
4          26.0          366
5          26.6          400
6          25.7          419
7          24.3          389
8          24.1          423

```

```

9          26.1      404
10         26.5      406
11         26.2      356
12         26.8      407
13         24.6      388
14         25.3      402
15         26.3      388
16         25.4      422
17         25.0      436
18         25.9      373
19         25.2      423
20         25.6      388
21         27.0      202
22         24.2      380
23         24.9      404
24         25.1      417
25         26.4      401
26         26.7      431
27         24.5      392
28         24.0      218
29         26.9      407
30         25.8      371
31         24.7      394

```

```
print(how_unif(inpt_datf = datf_test, normalised = FALSE))
```

```
[1] 0.0752957
```

```
sample_val <- round(rnorm(n = 12000, mean = 24, sd = 7), 1)
sample_freq <- unique_total(sample_val)
datf_test <- data.frame(unique(sample_val), sample_freq)
```

```
print(how_unif(inpt_datf = datf_test, normalised = FALSE))
```

```
[1] 0.7797352
```

id_keepr

id_keepr

Description

Allow to get the original indexes after multiple equality comparison according to the original number of row

Usage

```
id_keepr(inpt_datf, col_v = c(), el_v = c(), rstr_l = NA)
```

Arguments

| | |
|-----------|--|
| inpt_datf | is the input dataframe |
| col_v | is the vector containing the column numbers or names to be compared to their respective elements in "el_v" |

| | |
|---------------------|---|
| <code>el_v</code> | is a vector containing the elements that may be contained in their respective column described in "col_v" |
| <code>rstr_l</code> | is a list containing the vector composed of the indexes of the elements chosen for each comparison. If the length of the list is inferior to the length of comparisons, so the last vector of <code>rstr_l</code> will be the same as the last one to fill make <code>rstr_l</code> equal in term of length to <code>col_v</code> and <code>el_v</code> |

Examples

```
datf1 <- data.frame(c("oui", "oui", "oui", "non", "oui"),
  c("opui", "op", "op", "zez", "zez"), c(5:1), c(1:5))

print(id_keepr(inpt_datf=datf1, col_v=c(1, 2), el_v=c("oui", "op")))

#[1] 2 3

print(id_keepr(inpt_datf=datf1, col_v=c(1, 2), el_v=c("oui", "op"),
  rstr_l=list(c(1:5), c(3, 2, 2, 2, 3))))

#[1] 2 3

print(id_keepr(inpt_datf=datf1, col_v=c(1, 2), el_v=c("oui", "op"),
  rstr_l=list(c(1:5), c(3))))

#[1] 3

print(id_keepr(inpt_datf=datf1, col_v=c(1, 2), el_v=c("oui", "op"), rstr_l=list(c(1:5))))

#[1] 2 3
```

incr_fillr

incr_fillr

Description

Take a vector uniquely composed by double and sorted ascendingly, a step, another vector of elements whose length is equal to the length of the first vector, and a default value. If an element of the vector is not equal to its predecessor minus a user defined step, so these can be the output according to the parameters (see example):

Usage

```
incr_fillr(inpt_v, wrk_v = NA, default_val = NA, step = 1)
```

Arguments

| | |
|--------------------------|---|
| <code>inpt_v</code> | is the ascending double only composed vector |
| <code>wrk_v</code> | is the other vector (size equal to <code>inpt_v</code>), defaults to NA |
| <code>default_val</code> | is the default value put when the difference between two following elements of <code>inpt_v</code> is greater than <code>step</code> , defaults to NA |
| <code>step</code> | is the allowed difference between two elements of <code>inpt_v</code> |

Examples

```
print(incr_fillr(inpt_v=c(1, 2, 4, 5, 9, 10),
                wrk_v=NA,
                default_val="increasing"))

#[1] 1 2 3 4 5 6 7 8 9 10

print(incr_fillr(inpt_v=c(1, 1, 2, 4, 5, 9),
                wrk_v=c("ok", "ok", "ok", "ok", "ok"),
                default_val=NA))

#[1] "ok" "ok" "ok" NA "ok" "ok" NA NA NA

print(incr_fillr(inpt_v=c(1, 2, 4, 5, 9, 10),
                wrk_v=NA,
                default_val="NAN"))

#[1] "1" "2" "NAN" "4" "5" "NAN" "NAN" "NAN" "9" "10"
```

infinite_char_seq *infinite_char_seq*

Description

Allow to generate an infinite sequence of unique letters

Usage

```
infinite_char_seq(n, base_char = letters)
```

Arguments

`n` is how many sequence of numbers will be generated

`base_char` is the vector containing the elements from which the sequence is generated

Examples

```
print(infinite_char_seq(28))

[1] "a" "b" "c" "d" "e" "f" "g" "h" "i" "j" "k" "l" "m" "n" "o"
[16] "p" "q" "r" "s" "t" "u" "v" "w" "x" "y" "a" "aa" "ab"
```

inner_all

inner_all

Description

Allow to apply inner join on n dataframes, datatables, tibble

Usage

```
inner_all(..., keep_val = FALSE, id_v)
```

Arguments

... are all the dataframes etc
 keep_val is if you want to keep the id column
 id_v is the common id of all the dataframes etc

Examples

```
datf1 <- data.frame(
  "id1"=c(1:5),
  "var1"=c("oui", "oui", "oui", "non", "non")
)

datf2 <- data.frame(
  "id1"=c(1, 2, 3, 7, 9),
  "var1"=c("oui2", "oui2", "oui2", "non2", "non2")
)

print(inner_all(datf1, datf2, keep_val=FALSE, id_v="id1"))

id1 var1.x var1.y
1 1 oui oui2
2 2 oui oui2
3 3 oui oui2
```

insert_datf

insert_datf

Description

Allow to insert dataframe into another dataframe according to coordinates (row, column) from the dataframe that will be inserted

Usage

```
insert_datf(datf_in, datf_ins, ins_loc)
```

Arguments

- `datf_in` is the dataframe that will be inserted
- `datf_ins` is the dataset to be inserted
- `ins_loc` is a vector containg two parameters (row, column) of the begining for the insertion

Examples

```
datf1 <- data.frame(c(1, 4), c(5, 3))

datf2 <- data.frame(c(1, 3, 5, 6), c(1:4), c(5, 4, 5, "ereer"))

print(insert_datf(datf_in=datf2, datf_ins=datf1, ins_loc=c(4, 2)))

#   c.1..3..5..6. c.1.4. c.5..4..5...ereer..
# 1             1      1                    5
# 2             3      2                    4
# 3             5      3                    5
# 4             6      1                    5

print(insert_datf(datf_in=datf2, datf_ins=datf1, ins_loc=c(3, 2)))

#   c.1..3..5..6. c.1.4. c.5..4..5...ereer..
# 1             1      1                    5
# 2             3      2                    4
# 3             5      1                    5
# 4             6      4                    3

print(insert_datf(datf_in=datf2, datf_ins=datf1, ins_loc=c(2, 2)))

#   c.1..3..5..6. c.1.4. c.5..4..5...ereer..
# 1             1      1                    5
# 2             3      1                    5
# 3             5      4                    3
# 4             6      4                ereer
```

| | |
|----------------------------|----------------------|
| <code>intersect_all</code> | <i>intersect_all</i> |
|----------------------------|----------------------|

Description

Allows to calculate the intersection between n vectors

Usage

```
intersect_all(...)
```

Arguments

- `...` is all the vector you want to calculate the intersection from

Examples

```
print(intersect_all(c(1:5), c(1, 2, 3, 6), c(1:4)))

[1] 1 2 3
```

| | |
|---------------|----------------------|
| intersect_mod | <i>intersect_mod</i> |
|---------------|----------------------|

Description

Returns the mods that have elements in common

Usage

```
intersect_mod(datf, inter_col, mod_col, n_min, descendly_ordered = NA)
```

Arguments

| | |
|-------------------|---|
| datf | is the input dataframe |
| inter_col | is the column name or the column number of the values that may be commun between the different mods |
| mod_col | is the column name or the column number of the mods in the dataframe |
| n_min | is the minimum elements in common a mod should have to be taken in count |
| ordered_descendly | in case that the elements in commun are numeric, this option can be enabled by giving a value of TRUE or FALSE see examples |

Examples

```
datf <- data.frame("col1"=c("oui", "oui", "oui", "oui", "oui", "oui",
                           "non", "non", "non", "non", "ee", "ee", "ee"), "col2"=c(1:6, 2:5, 1:3))

print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=2))

  col1 col2
2   oui   2
3   oui   3
7  non    2
8  non    3
12  ee    2
13  ee    3

print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=3))

  col1 col2
2   oui   2
3   oui   3
4   oui   4
5   oui   5
7  non    2
8  non    3
```

```
9   non      4
10  non      5

print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=5))

  coll col2
1  oui     1
2  oui     2
3  oui     3
4  oui     4
5  oui     5
6  oui     6

datf <- data.frame("coll"=c("non", "non", "oui", "oui", "oui", "oui",
                             "non", "non", "non", "non", "ee", "ee", "ee"), "col2"=c(1:6, 2:5, 1:6))

print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=3))

  coll col2
8   non     3
9   non     4
10  non     5
3   oui     3
4   oui     4
5   oui     5
```

| | |
|------------------|------------------|
| <i>inter_max</i> | <i>inter_max</i> |
|------------------|------------------|

Description

Takes as input a list of vectors composed of ints or floats ascendly ordered (intervals) that can have a different step to one of another element ex: list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)). The function will return the list of lists altered according to the maximum step found in the input list.

Usage

```
inter_max(inpt_l, max_ = -1000, get_lst = TRUE)
```

Arguments

- inpt_l is the input list
- max_ is a value you are sure is the minimum step value of all the sub-lists
- get_lst is the parameter that, if set to True, will keep the last values of vectors in the return value if the last step exceeds the end value of the vector.

Examples

```
print(inter_max(inpt_l=list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)), get_lst=TRUE))

#[[1]]
#[1] 0 4
```

```

#
#[[2]]
#[1] 0 4
#
#[[3]]
#[1] 1.0 2.3

print(inter_max(inpt_l=list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)), get_lst=FALSE))

# [[1]]
#[1] 0 4
#
#[[2]]
#[1] 0 4
#
#[[3]]
#[1] 1

```

inter_min

inter_min

Description

Takes as input a list of vectors composed of ints or floats ascendly ordered (intervals) that can have a different step to one of another element ex: list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)). This function will return the list of vectors with the same steps preserving the begin and end value of each interval. The way the algorithm searches the common step of all the sub-lists is also given by the user as a parameter, see `how_to` paramaters.

Usage

```

inter_min(
  inpt_l,
  min_ = 1000,
  sensi = 3,
  sensi2 = 3,
  how_to_op = c("divide"),
  how_to_val = c(3)
)

```

Arguments

| | |
|------------------------|---|
| <code>inpt_l</code> | is the input list containing all the intervals |
| <code>min_</code> | is a value you are sure is superior to the maximum step value in all the intervals |
| <code>sensi</code> | is the decimal accuracy of how the difference between each value n to $n+1$ in an interval is calculated |
| <code>sensi2</code> | is the decimal accuracy of how the value with the common step is calculated in all the intervals |
| <code>how_to_op</code> | is a vector containing the operations to perform to the pre-common step value, defaults to only "divide". The operations can be "divide", "subtract", "multiply" or "add". All type of operations can be in this parameter. |

how_to_val is a vector containing the value relatives to the operations in hot_to_op, defaults to 3 output from ex:

Examples

```
print(inter_min(inpt_l=list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3))))

# [[1]]
# [1] 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8
#[20] 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7
#[39] 3.8 3.9 4.0
#
# [[2]]
# [1] 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8
#[20] 1.9 2.0 2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 3.0 3.1 3.2 3.3 3.4 3.5 3.6 3.7
#[39] 3.8 3.9 4.0
#
# [[3]]
# [1] 1.0 1.1 1.2 1.3 1.4 1.5 1.6 1.7 1.8 1.9 2.0 2.1 2.2 2.3
```

| | |
|----------------|-----------------------|
| isnt_divisible | <i>isnt_divisible</i> |
|----------------|-----------------------|

Description

Takes a vector as an input and returns all the elements that are not divisible by all choosen numbers from another vector.

Usage

```
isnt_divisible(inpt_v = c(), divisible_v = c())
```

Arguments

inpt_v is the input vector

divisible_v is the vector containing all the numbers that will try to divide those contained in inpt_v

Examples

```
print(isnt_divisible(inpt_v=c(1:111), divisible_v=c(2, 4, 5)))

# [1] 1 3 7 9 11 13 17 19 21 23 27 29 31 33 37 39 41 43 47
#[20] 49 51 53 57 59 61 63 67 69 71 73 77 79 81 83 87 89 91 93
#[39] 97 99 101 103 107 109 111
```

| | |
|--------------|---------------------|
| is_divisible | <i>is_divisible</i> |
|--------------|---------------------|

Description

Takes a vector as an input and returns all the elements that are divisible by all choosen numbers from another vector.

Usage

```
is_divisible(inpt_v = c(), divisible_v = c())
```

Arguments

| | |
|-------------|--|
| inpt_v | is the input vector |
| divisible_v | is the vector containing all the numbers that will try to divide those contained in inpt_v |

Examples

```
print(is_divisible(inpt_v=c(1:111), divisible_v=c(2, 4, 5)))

#[1] 20 40 60 80 100
```

| | |
|------------|-------------------|
| join_n_lvl | <i>join_n_lvl</i> |
|------------|-------------------|

Description

Allow to see the progress of the multi-level joins of the different variables modalities. Here, multi-level joins is a type of join that usually needs a concatenation of two or more variables to make a key. But here, there is no need to proceed to a concatenation. See examples.

Usage

```
join_n_lvl(frst_datf, scd_datf, join_type = c(), lst_pair = list())
```

Arguments

| | |
|-----------|--|
| frst_datf | is the first data.frame (table) |
| scd_datf | is the second data.frame (table) |
| join_type | is a vector containing all the join type ("left", "inner", "right") for each variable |
| lst_pair | is a lis of vectors. The vectors refers to a multi-level join. Each vector should have a length of 1. Each vector should have a name. Its name refers to the column name of multi-level variable and its value refers to the column name of the join variable. |

Examples

```

datf3 <- data.frame("vil"=c("one", "one", "one", "two", "two", "two"),
                    "charac"=c(1, 2, 2, 1, 2, 2),
                    "rev"=c(1250, 1430, 970, 1630, 2231, 1875),
                    "vil2" = c("one", "one", "one", "two", "two", "two"),
                    "idl2" = c(1:6))
datf4 <- data.frame("vil"=c("one", "one", "one", "two", "two", "three"),
                    "charac"=c(1, 2, 2, 1, 1, 2),
                    "rev"=c(1.250, 1430, 970, 1630, 593, 456),
                    "vil2" = c("one", "one", "one", "two", "two", "two"),
                    "idl2" = c(2, 3, 1, 5, 5, 5))

print(join_n_lvl(frst_datf=datf3, scd_datf=datf4, lst_pair=list(c("charac" = "vil"), c("vil2" = "idl2")),
                join_type=c("inner", "left")))

[1] "pair: charac vil"
| | 0%
1
|= | 50%
2
|==| 100%
[1] "pair: vil2 idl2"
| | 0%
one
|= | 50%
two
|==| 100%

  main_id.x vil.x charac.x rev.x vil2.x idl2.x main_id.y vil.y charac.y rev.y
1  loneone1  one        1 1250    one     1      <NA> <NA>      NA   NA
2  2oneone2  one        2 1430    one     2      <NA> <NA>      NA   NA
3  2oneone3  one        2  970    one     3  2oneone3  one        2 1430
4  1twotwo4  two        1 1630    two     4      <NA> <NA>      NA   NA
  vil2.y idl2.y
1  <NA>     NA
2  <NA>     NA
3   one      3
4  <NA>     NA

```

just_anything

*just_anything***Description**

Extract only the letters from all elements of a vector, see examples

Usage

```
just_anything(inpt_v, symbol_ = "-", anything_v = c())
```

Arguments

`inpt_v` is the input vector
`symbol_` is the chosen symbol to replace numbers

Examples

```
print(just_anything(inpt_v = c("oui222jj644", "oui122jj"),
  symbol_ = "-", anything_v = letters))

[1] "oui-jj-" "oui-jj"
```

| | |
|----------------|-----------------------|
| just_anything2 | <i>just_anything2</i> |
|----------------|-----------------------|

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_anything2(inpt_v, symbol_ = "-", anything_v = c())
```

Arguments

| | |
|---------|---|
| inpt_v | is the input vector |
| symbol_ | is the chosen symbol to replace numbers |

Examples

```
print(just_anything2(inpt_v = c("oui222jj44", "oui122jj"),
  symbol_ = "-", anything_v = letters))

[1] "oui---jj--" "oui---jj"
```

| | |
|----------------|-----------------------|
| just_anything3 | <i>just_anything3</i> |
|----------------|-----------------------|

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_anything3(inpt_v, anything_v = c())
```

Arguments

| | |
|--------|---------------------|
| inpt_v | is the input vector |
|--------|---------------------|

Examples

```
print(just_anything3(inpt_v = c("oui222jj644", "oui122jj"),
  anything_v = letters))

[1] "oui jj" "oui jj"
```

| | |
|----------|-----------------|
| just_chr | <i>just_chr</i> |
|----------|-----------------|

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_chr(inpt_v, symbol_ = "-")
```

Arguments

| | |
|---------|---|
| inpt_v | is the input vector |
| symbol_ | is the chosen symbol to replace numbers |

Examples

```
print(just_chr(inpt_v = c("oui222jj644", "oui122jj"),
  symbol_ = "-"))

[1] "oui-jj-" "oui-jj"
```

| | |
|-----------|------------------|
| just_chr2 | <i>just_chr2</i> |
|-----------|------------------|

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_chr2(inpt_v, symbol_ = "-")
```

Arguments

| | |
|---------|---|
| inpt_v | is the input vector |
| symbol_ | is the chosen symbol to replace numbers |

Examples

```
print(just_chr2(inpt_v = c("oui222jj44", "oui122jj"),
  symbol_ = "-"))

[1] "oui---jj--" "oui---jj"
```

`just_chr3`*just_chr3*

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_chr3(inpt_v)
```

Arguments

`inpt_v` is the input vector

Examples

```
print(just_chr3(inpt_v = c("oui222jj644", "oui122jj")))  
[1] "oui jj" "oui jj"
```

`just_nb`*just_nb*

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_nb(inpt_v, symbol_ = "-")
```

Arguments

`inpt_v` is the input vector

`symbol_` is the chosen symbol to replace numbers

Examples

```
print(just_nb(inpt_v = c("oui222jj644", "oui122jj"),  
              symbol_ = "-"))  
[1] "-222-44" "-122-"
```

just_nb2

*just_nb2***Description**

Extract only the letters from all elements of a vector, see examples

Usage

```
just_nb2(inpt_v, symbol_ = "-")
```

Arguments

inpt_v is the input vector

symbol_ is the chosen symbol to replace numbers

Examples

```
print(just_nb2(inpt_v = c("oui222jj44", "oui122jj"),
  symbol_ = "-"))

[1] "---222--44" "---122--"
```

just_nb3

*just_nb3***Description**

Extract only the letters from all elements of a vector, see examples

Usage

```
just_nb3(inpt_v)
```

Arguments

inpt_v is the input vector

Examples

```
print(just_nb3(inpt_v = c("oui222jj644", "oui122jj")))

[1] 222644 122
```

```
just_not_anything  just_not_anything
```

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_not_anything(inpt_v, symbol_ = "-", anything_v = c())
```

Arguments

| | |
|---------|---|
| inpt_v | is the input vector |
| symbol_ | is the chosen symbol to replace numbers |

Examples

```
print(just_not_anything(inpt_v = c("oui222jj644", "oui122jj"),
  symbol_ = "-", anything_v = letters))

[1] "-222-644" "-122-"
```

```
just_not_anything2  just_not_anything2
```

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_not_anything2(inpt_v, symbol_ = "-", anything_v = c())
```

Arguments

| | |
|---------|---|
| inpt_v | is the input vector |
| symbol_ | is the chosen symbol to replace numbers |

Examples

```
print(just_not_anything2(inpt_v = c("oui222jj44", "oui122jj"),
  symbol_ = "-", anything_v = letters))

[1] "---222-44" "---122--"
```

```
just_not_anything3 just_not_anything3
```

Description

Extract only the letters from all elements of a vector, see examples

Usage

```
just_not_anything3(inpt_v, anything_v = c())
```

Arguments

`inpt_v` is the input vector

Examples

```
print(just_not_anything3(inpt_v = c("oui222jj644", "oui122jj"),  
  anything_v = letters))  
  
[1] "222644" "122"
```

```
leap_yr leap_year
```

Description

Get if the year is leap

Usage

```
leap_yr(year)
```

Arguments

`year` is the input year

Examples

```
print(leap_yr(year=2024))  
  
#[1] TRUE
```

| | |
|----------|-----------------|
| left_all | <i>left_all</i> |
|----------|-----------------|

Description

Allow to apply left join on n dataframes, datatables, tibble

Usage

```
left_all(..., keep_val = FALSE, id_v)
```

Arguments

| | |
|----------|--|
| ... | are all the dataframes etc |
| keep_val | is if you want to keep the id column |
| id_v | is the common id of all the dataframes etc |

Examples

```
datf1 <- data.frame(
  "id1"=c(1:5),
  "var1"=c("oui", "oui", "oui", "non", "non")
)

datf2 <- data.frame(
  "id1"=c(1, 2, 3, 7, 9),
  "var1"=c("oui2", "oui2", "oui2", "non2", "non2")
)

print(left_all(datf1, datf2, datf2, datf2, keep_val=FALSE, id_v="id1"))

  id1 var1.x var1.y var1.x.x var1.y.y
1   1   oui  oui2    oui2    oui2
2   2   oui  oui2    oui2    oui2
3   3   oui  oui2    oui2    oui2
4   4   non <NA>    <NA>    <NA>
5   5   non <NA>    <NA>    <NA>#'
print(left_all(datf1, datf2, datf2, keep_val=FALSE, id_v="id1"))

  id1 var1.x var1.y var1
1   1   oui  oui2 oui2
2   2   oui  oui2 oui2
3   3   oui  oui2 oui2
4   4   non <NA> <NA>
5   5   non <NA> <NA>
```

| | |
|--------------|---------------------|
| letter_to_nb | <i>letter_to_nb</i> |
|--------------|---------------------|

Description

Allow to get the number of a spreadsheet based column by the letter ex: AAA = 703

Usage

```
letter_to_nb(letter)
```

Arguments

letter is the letter (name of the column)

Examples

```
print(letter_to_nb("rty"))  
  
#[1] 12713
```

| | |
|------------|-------------------|
| list_files | <i>list_files</i> |
|------------|-------------------|

Description

A list.files() based function addressing the need of listing the files with extension a or or extension b ...

Usage

```
list_files(patternc, pathc = ".")
```

Arguments

patternc is a vector containing all the extensions you want
pathc is the path, can be a vector of multiple path because list.files() supports it.

| | |
|------------|-------------------|
| lst_flatnr | <i>lst_flatnr</i> |
|------------|-------------------|

Description

Flatten a list to a vector

Usage

```
lst_flatnr(inpt_l)
```

Arguments

`inpt_l` is the input list

Examples

```
print(lst_flatnr(inpt_l=list(c(1, 2), c(5, 3), c(7, 2, 7))))
#[1] 1 2 5 3 7 2 7
```

| | |
|----------|-----------------|
| match_by | <i>match_by</i> |
|----------|-----------------|

Description

Allow to match elements by ids, see examples.

Usage

```
match_by(to_match_v = c(), inpt_v = c(), inpt_ids = c())
```

Arguments

| | |
|-------------------------|--|
| <code>to_match_v</code> | is the vector containing all the elements to match |
| <code>inpt_v</code> | is the input vector containong all the elements that could contains the elements to match. Each elements is linked to an element from <code>inpt_ids</code> at any given index, see examples. So <code>inpt_v</code> and <code>inpt_ids</code> must be the same size |
| <code>inpt_ids</code> | is the vector containing all the ids for the elements in <code>inpt_v</code> . An element is linked to the id <code>x</code> is both are at the same index. So <code>inpt_v</code> and <code>inpt_ids</code> must be the same size |

Examples

```
print(match_by(to_match_v = c("a"), inpt_v = c("a", "z", "a", "p", "p", "e", "e", "a"),
             inpt_ids = c(1, 1, 1, 2, 2, 3, 3, 3)))

[1] 1 8

print(match_by(to_match_v = c("a"), inpt_v = c("a", "z", "a", "a", "p", "e", "e", "a"),
             inpt_ids = c(1, 1, 1, 2, 2, 3, 3, 3)))

[1] 1 4 8

print(match_by(to_match_v = c("a", "e"), inpt_v = c("a", "z", "a", "a", "p", "e", "e", "a"),
             inpt_ids = c(1, 1, 1, 2, 2, 3, 3, 3)))

[1] 1 4 8 6
```

| | |
|----------|-----------------|
| multitud | <i>multitud</i> |
|----------|-----------------|

Description

From a list containing vectors allow to generate a vector following this rule: list(c("a", "b"), c("1", "2"), c("A", "Z", "E")) -> c("a1A", "b1A", "a2A", "b2A", "a1Z, ...)

Usage

```
multitud(l, sep_ = "")
```

Arguments

- l is the list
- sep_ is the separator between elements (default is set to "" as you see in the example)

Examples

```
print(multitud(l=list(c("a", "b"), c("1", "2"), c("A", "Z", "E"), c("Q", "F")), sep_="/"))

#[1] "a/1/A/Q" "b/1/A/Q" "a/2/A/Q" "b/2/A/Q" "a/1/Z/Q" "b/1/Z/Q" "a/2/Z/Q"
#[8] "b/2/Z/Q" "a/1/E/Q" "b/1/E/Q" "a/2/E/Q" "b/2/E/Q" "a/1/A/F" "b/1/A/F"
#[15] "a/2/A/F" "b/2/A/F" "a/1/Z/F" "b/1/Z/F" "a/2/Z/F" "b/2/Z/F" "a/1/E/F"
#[22] "b/1/E/F" "a/2/E/F" "b/2/E/F"
```

| | |
|------------|-------------------|
| nb2_follow | <i>nb2_follow</i> |
|------------|-------------------|

Description

Allows to get the number and pattern of potential continuous pattern after an index of a vector, see examples

Usage

```
nb2_follow(inpt_v, inpt_idx, inpt_follow_v = c())
```

Arguments

`inpt_v` is the input vector
`inpt_idx` is the index
`inpt_follow_v` is a vector containing the patterns that are potentially just after `inpt_nb`

Examples

```
print(nb2_follow(inpt_v = c(1:12), inpt_idx = 4, inpt_follow_v = c(5)))

[1] 1 5
# we have 1 times the pattern 5 just after the 4nth index of inpt_v

print(nb2_follow(inpt_v = c(1, "non", "oui", "oui", "oui", "nop", 5), inpt_idx = 2, inpt_follow_v = c("oui", 5)))

[1] "3" "oui"

# we have 3 times continuously the pattern 'oui' and 0 times the pattern 5 just after the 2nd index of inpt_v

print(nb2_follow(inpt_v = c(1, "non", "5", "5", "5", "nop", 5), inpt_idx = 2, inpt_follow_v = c("oui", 5)))

[1] "3" "5"
```

| | |
|-----------|------------------|
| nb_follow | <i>nb_follow</i> |
|-----------|------------------|

Description

Allow to get the number of certains patterns that may be after an index of a vector continuously, see examples

Usage

```
nb_follow(inpt_v, inpt_idx, inpt_follow_v = c())
```

Arguments

`inpt_v` is the input vector
`inpt_idx` is the index
`inpt_follow_v` is a vector containing all the potential patterns that may follow the element in the vector at the index `inpt_idx`

Examples

```
print(nb_follow(inpt_v = c(1:13), inpt_idx = 6, inpt_follow_v = c(5:9)))

[1] 3

print(nb_follow(inpt_v = c("ou", "nn", "pp", "zz", "zz", "ee", "pp"), inpt_idx = 2,
  inpt_follow_v = c("pp", "zz")))

[1] 3
```

| | |
|---------------------------|---------------------|
| <code>nb_to_letter</code> | <i>nb_to_letter</i> |
|---------------------------|---------------------|

Description

Allow to get the letter of a spreadsheet based column by the number ex: 703 = AAA

Usage

```
nb_to_letter(x)
```

Arguments

`x` is the number of the column

Examples

```
print(nb_to_letter(5))

[1] "e"

print(nb_to_letter(27))

[1] "aa"

print(nb_to_letter(51))

[1] "ay"

print(nb_to_letter(52))

[1] "az"

print(nb_to_letter(53))
```

```

[1] "ba"

print(nb_to_letter(675))

[1] "yy"

print(nb_to_letter(676))

[1] "yz"

print(nb_to_letter(677))

[1] "za"

print(nb_to_letter(702))

[1] "zz"

print(nb_to_letter(703))

[1] "aaa"

print(nb_to_letter(18211))

[1] "zxx"

print(nb_to_letter(18277))

[1] "zzy"

print(nb_to_letter(18278))

[1] "zzz"

print(nb_to_letter(18279))

[1] "aaaa"

```

nestr_datfl

nestr_datfl

Description

Allow to write a value (1a) to a dataframe (1b) to its cells that have the same coordinates (row and column) than the cells whose value is equal to a another special value (2a), from another another dataframe (2b). The value (1a) depends of the cell value coordinates of the third dataframe (3b). If a cell coordinates (1c) of the first dataframe (1b) does not correspond to the coordinates of a good returning cell value (2a) from the dataframe (2b), so this cell (1c) can have its value changed to the same cell coordinates value (3a) of a third dataframe (4b), if (4b) is not set to NA.

Usage

```
nestr_datf1(
  inptf_datf,
  inptt_pos_datf,
  nestr_datf,
  yes_val = TRUE,
  inptt_neg_datf = NA
)
```

Arguments

`inptf_datf` is the input dataframe (1b)

`inptt_pos_datf` is the dataframe (2b) that corresponds to the (1a) values

`nestr_datf` is the dataframe (2b) that has the special value (2a)

`yes_val` is the special value (2a)

`inptt_neg_datf` is the dataframe (4b) that has the (3a) values, defaults to NA

Examples

```
print(nestr_datf1(inptf_datf=data.frame(c(1, 2, 1), c(1, 5, 7)),
  inptt_pos_datf=data.frame(c(4, 4, 3), c(2, 1, 2)),
  inptt_neg_datf=data.frame(c(44, 44, 33), c(12, 12, 12)),
  nestr_datf=data.frame(c(TRUE, FALSE, TRUE), c(FALSE, FALSE, TRUE)), yes_val=TRUE))

#   c.1..2..1. c.1..5..7.
#1         4         12
#2        44         12
#3         3          2

print(nestr_datf1(inptf_datf=data.frame(c(1, 2, 1), c(1, 5, 7)),
  inptt_pos_datf=data.frame(c(4, 4, 3), c(2, 1, 2)),
  inptt_neg_datf=NA,
  nestr_datf=data.frame(c(TRUE, FALSE, TRUE), c(FALSE, FALSE, TRUE)), yes_val=TRUE))

#   c.1..2..1. c.1..5..7.
#1         4          1
#2         2          5
#3         3          2
```

nestr_datf2

nestr_datf2

Description

Allow to write a special value (1a) in the cells of a dataframe (1b) that correspond (row and column) to those of another dataframe (2b) that return another special value (2a). The cells whose coordinates do not match the coordinates of the dataframe (2b), another special value can be written (3a) if not set to NA.

Usage

```
nestr_datf2(inptf_datf, rtn_pos, rtn_neg = NA, nestr_datf, yes_val = T)
```

Arguments

- inptf_datf is the input dataframe (1b)
- rtn_pos is the special value (1a)
- rtn_neg is the special value (3a)
- nestr_datf is the dataframe (2b)
- yes_val is the special value (2a)

Examples

```
print(nestr_datf2(inptf_datf=data.frame(c(1, 2, 1), c(1, 5, 7)), rtn_pos="yes",
rtn_neg="no", nestr_datf=data.frame(c(TRUE, FALSE, TRUE), c(FALSE, FALSE, TRUE)), yes_val

# c.1..2..1. c.1..5..7.
#1          yes          no
#2          no           no
#3          yes          yes
```

| | |
|--------|--------|
| nest_v | nest_v |
|--------|--------|

Description

Nest two vectors according to the following parameters.

Usage

```
nest_v(f_v, t_v, step = 1, after = 1)
```

Arguments

- f_v is the vector that will welcome the nested vector t_v
- t_v is the imbriquator vector
- step defines after how many elements of f_v the next element of t_v can be put in the output
- after defines after how many elements of f_v, the begining of t_v can be put

Examples

```
print(nest_v(f_v=c(1, 2, 3, 4, 5, 6), t_v=c("oui", "oui2", "oui3", "oui4", "oui5", "oui6",
step=2, after=2))

#[1] "1" "2" "oui" "3" "4" "oui2" "5" "6" "oui3" "oui4"
```

| | |
|-------------|--------------------|
| new_ordered | <i>new_ordered</i> |
|-------------|--------------------|

Description

Returns the indexes of elements contained in "w_v" according to "f_v"

Usage

```
new_ordered(f_v, w_v, nvr_here = NA)
```

Arguments

| | |
|----------|--|
| f_v | is the input vector |
| w_v | is the vector containing the elements that can be in f_v |
| nvr_here | is a value you are sure is not present in f_v |

Examples

```
print(new_ordered(f_v=c("non", "non", "non", "oui"), w_v=c("oui", "non", "non")))
#[1] 4 1 2
```

| | |
|-------------|--------------------|
| normal_dens | <i>normal_dens</i> |
|-------------|--------------------|

Description

Calculates the normal distribution probability, see examples

Usage

```
normal_dens(target_v = c(), mean, sd)
```

Arguments

| | |
|----------|---|
| target_v | is the target value(s) (one or bounded), see examples |
| mean | is the mean of the normal distribution |
| sd | is the standard deviation of the normal distribution |

Examples

```
print(normal_dens(target_v = 13, mean = 12, sd = 2))

[1] 0.1760327

print(normal_dens(target_v = c(9, 11), mean = 12, sd = 1.5, step = 0.01))

[1] 0.2288579

print(normal_dens(target_v = c(1, 18), mean = 12, sd = 1.5, step = 0.01))

[1] 0.9999688
```

| | |
|------|-------------|
| occu | <i>occu</i> |
|------|-------------|

Description

Allow to see the occurrence of each variable in a vector. Returns a dataframe with, as the first column, the all the unique variable of the vector and , in he second column, their occurrence respectively.

Usage

```
occu(inpt_v)
```

Arguments

inpt_v the input dataframe

Examples

```
print(occu(inpt_v=c("oui", "peut", "peut", "non", "oui")))

#   var occurrence
#1  oui           2
#2  peut          2
#3  non           1
```

| | |
|----------------|-----------------------|
| old_to_new_idx | <i>old_to_new_idx</i> |
|----------------|-----------------------|

Description

Allow to convert index of elements in a vector inpt_v to index of an vector type 1:sum(nchar(inpt_v)), see examples

Usage

```
old_to_new_idx(inpt_v = c())
```

Arguments

`inpt_v` is the input vector

Examples

```
print(old_to_new_idx(inpt_v = c("oui", "no", "eeee")))

[1] 1 1 1 2 2 3 3 3 3
```

| | |
|--------------------------|---------------------------------|
| <code>pairs_findr</code> | <i><code>pairs_findr</code></i> |
|--------------------------|---------------------------------|

Description

Takes a character as input and detect the pairs of pattern, like the parenthesis pairs if the pattern is "(" and then ")"

Usage

```
pairs_findr(inpt, ptrn1 = "(", ptrn2 = ")")
```

Arguments

`inpt` is the input character
`ptrn1` is the first pattern encountered in the pair
`ptrn2` is the second pattern in the pair

Examples

```
print(pairs_findr(inpt="ze+(yu*45/(jk+zz)*(o()p))-(re*(rt+qs)-fg)") )

[[1]]
[1] 4 1 1 3 2 2 3 4 6 5 5 6

[[2]]
[1] 4 11 17 19 21 22 24 25 27 31 37 41
```

| | |
|---------------------------------|--|
| <code>pairs_findr_merger</code> | <i><code>pairs_findr_merger</code></i> |
|---------------------------------|--|

Description

Takes two different outputs from `pairs_findr` and merge them. Can be usefull when the pairs consists in different patterns, for example one output from the `pairs_findr` function with `ptrn1 = "("` and `ptrn2 = ")"`, and a second output from the `pairs_findr` function with `ptrn1 = ""` and `ptrn2 = ""`.

Usage

```
pairs_findr_merger(lst1 = list(), lst2 = list())
```

Arguments

lst1 is the first ouput from pairs findr function
 lst2 is the second ouput from pairs findr function

Examples

```
print(pairs_findr_merger(lst1=list(c(1, 2, 3, 3, 2, 1), c(3, 4, 5, 7, 8, 9)),
                        lst2=list(c(1, 1), c(1, 2))))

[[1]]
[1] 1 1 2 3 4 4 3 2

[[2]]
[1] 1 2 3 4 5 7 8 9

print(pairs_findr_merger(lst1=list(c(1, 2, 3, 3, 2, 1), c(3, 4, 5, 7, 8, 9)),
                        lst2=list(c(1, 1), c(1, 11))))

[[1]]
[1] 1 2 3 4 4 3 2 1

[[2]]
[1] 1 3 4 5 7 8 9 11

print(pairs_findr_merger(lst1=list(c(1, 2, 3, 3, 2, 1), c(3, 4, 5, 8, 10, 11)),
                        lst2=list(c(4, 4), c(6, 7))))

[[1]]
[1] 1 2 3 4 4 3 2 1

[[2]]
[1] 3 4 5 6 7 8 10 11

print(pairs_findr_merger(lst1=list(c(1, 2, 3, 3, 2, 1), c(3, 4, 5, 7, 10, 11)),
                        lst2=list(c(4, 4), c(8, 9))))

[[1]]
[1] 1 2 3 3 4 4 2 1

[[2]]
[1] 3 4 5 7 8 9 10 11

print(pairs_findr_merger(lst1=list(c(1, 2, 3, 3, 2, 1), c(3, 4, 5, 7, 10, 11)),
                        lst2=list(c(4, 4), c(18, 19))))

[[1]]
[1] 1 2 3 3 2 1 4 4

[[2]]
[1] 3 4 5 7 10 11 18 19

print(pairs_findr_merger(lst1 = list(c(1, 1, 2, 2, 3, 3), c(1, 25, 26, 32, 33, 38)),
                        lst2 = list(c(1, 1, 2, 2, 3, 3), c(7, 11, 13, 17, 19, 24))))

[[1]]
[1] 1 2 2 3 3 4 4 1 5 5 6 6
```

```

[[2]]
[1] 1 7 11 13 17 19 24 25 26 32 33 38

print(pairs_findr_merger(lst1 = list(c(1, 1, 2, 2, 3, 3), c(2, 7, 9, 10, 11, 15)),
                          lst2 = list(c(3, 2, 1, 1, 2, 3, 4, 4), c(1, 17, 18, 22, 23, 29,
[[1]]
[1] 6 5 1 1 2 2 3 3 4 4 5 6 7 7

[[2]]
[1] 1 2 7 9 10 11 15 17 18 22 23 29 35 40

print(pairs_findr_merger(lst1 = list(c(1, 1), c(22, 23)),
                          lst2 = list(c(1, 1, 2, 2), c(3, 21, 27, 32))))

[[1]]
[1] 1 1 2 2 3 3

[[2]]
[1] 3 21 22 23 27 32

```

pairs_insertr

pairs_insertr

Description

Takes a character representing an arbitrary condition (like ReGeX for example) or an information (to a parser for example), vectors containing all the pair of pattern that potentially surrounds condition (flagged_pair_v and corr_v), and a vector containing all the conjunction character, as input and returns the character with all or some of the condition surrounded by the pair characters. See examples. All the pair characters are inserted according to the closest pair they found prioritizing those found next to the condition and on the same depth-level and , if not found, the pair found at the n+1 depth-level.

Usage

```

pairs_insertr(
  inpt,
  algo_used = c(1:3),
  flagged_pair_v = c(")", "["),
  corr_v = c("(", "["),
  flagged_conj_v = c("&", "|")
)

```

Arguments

| | |
|-----------|--|
| inpt | is the input character representing an arbitrary condition, like ReGeX for example, or information to a parser for example |
| algo_used | is a vector containing one or more of the 3 algorithms used. The first algorithm will simply put the pair of parenthesis at the condition surrounded and/or after a character flagged (in flagged_conj_v) as a conjunction. The second algorithm |

will put parenthesis at the condition that are located after other conditions that are surrounded by a pair. The third algorithm will put a pair at all the condition, it is very powerfull but takes a longer time. See examples and make experience to see which combination of algorythm(s) is the most efficient for your use case.

flagged_pair_v
is a vector containing all the first character of the pairs

corr_v
is a vector containing all the last character of the pairs

flagged_conj_v
is a vector containing all the conjunction character

Examples

```
print(pairs_insertr(inpt = "([one]|two|twob)three(four)", algo_used = c(1)))

[1] "([one]| [two]| [twob])three(four) "

print(pairs_insertr(inpt = "(one|[two]|twob)three(four)", algo_used = c(2)))

[1] "(one|[two]| [twob]) (three) (four) "

print(pairs_insertr(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(1, 2)))

[1] "(oneA|[one]| [two]| [twob]) (three) (four) "

print(pairs_insertr(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(1, 2, 3)))

[1] "([oneA]| [one]| [two]| [twob]) (three) (four) "

print(pairs_insertr(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(3)))

[1] "([oneA]| [one]| (two)| (twob)) (three) (four) "

print(pairs_insertr(inpt = "(oneA|[one]|two|twob)three((four))", algo_used = c(3)))

[1] "([oneA]| [(one)]| (two)| (twob)) (three) ((four)) "
```

pairs_insertr2 *pairs_insertr2*

Description

Takes a character representing an arbitrary condition (like ReGeX for example) or an information (to a parser for example), vectors containing all the pair of pattern that potentially surrounds condition (flagged_pair_v and corr_v), and a vector containing all the conjunction character, as input and returns the character with all or some of the condition surrounded by the pair characters. See examples. All the pair characters are inserted according to the closest pair they found priotizing those found next to the condition and on the same depth-level and , if not found, the pair found at the n+1 depth-level.

Usage

```
pairs_insertr2(
  inpt,
  algo_used = c(1:3),
  flagged_pair_v = c(")", "["),
  corr_v = c("(", "["),
  flagged_conj_v = c("&", "|"),
  method = c("(", ")")
)
```

Arguments

| | |
|-----------------------------|--|
| <code>inpt</code> | is the input character representing an arbitrary condition, like ReGex for example, or information to a parser for example |
| <code>algo_used</code> | is a vector containing one or more of the 3 algorithms used. The first algorithm will simply put the pair of parenthesis at the condition surrounded and/or after a character flagged (in <code>flagged_conj_v</code>) as a conjunction. The second algorithm will put parenthesis at the condition that are located after other conditions that are surrounded by a pair. The third algorithm will put a pair at all the condition, it is very powerfull but takes a longer time. See examples and make experience to see which combination of algorithm(s) is the most efficient for your use case. |
| <code>flagged_pair_v</code> | is a vector containing all the first character of the pairs |
| <code>corr_v</code> | is a vector containing all the last character of the pairs |
| <code>flagged_conj_v</code> | is a vector containing all the conjunction character |
| <code>method</code> | is length 2 vector containing as a first index, the first character of the pair inserted, and at the last index, the second and last character of the pair |

Examples

```
print(pairs_insertr2(inpt = "([one]|two|twob)three(four)", algo_used = c(1), method = c(
[1] "([one]|(two)|(twob))three(four)"

print(pairs_insertr2(inpt = "([one]|two|twob)three(four)", algo_used = c(1), method = c(
[1] "([one]| [two]| [twob])three(four)"

print(pairs_insertr2(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(1, 2)))
[1] "(oneA|[one]|(two)|(twob))(three)(four)"

print(pairs_insertr2(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(1, 2), meth
      flagged_pair_v = c(")", "[", "#"), corr_v = c("(", "[", "-")))
[1] "(oneA|[one]|-two#|-twob#)-three#(four)"

print(pairs_insertr2(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(1, 2, 3)))
[1] "((oneA|[one]|(two)|(twob))(three)(four)"

print(pairs_insertr2(inpt = "(oneA|[one]|two|twob)three(four)", algo_used = c(3), method
```

```
[1] "([oneA]|[one]|[two]|[twob])[three](four)"

print(pairs_insertr2(inpt = "(oneA|[one]|two|twob)three((four))", algo_used = c(3)))

[1] "((oneA)|[one]|(two)|(twob))(three)((four))"
```

paste_datf

paste_datf

Description

Return a vector composed of pasted elements from the input dataframe at the same index.

Usage

```
paste_datf(inpt_datf, sep = "")
```

Arguments

`inpt_datf` is the input dataframe
`sep` is the separator between pasted elements, defaults to ""

Examples

```
print(paste_datf(inpt_datf=data.frame(c(1, 2, 1), c(33, 22, 55))))

[1] "133" "222" "155"
```

paste_datf2

paste_datf2

Description

Return a vector composed of pasted elements from the input dataframe at the same column.

Usage

```
paste_datf2(inpt_datf, sep = "")
```

Arguments

`inpt_datf` is the input dataframe
`sep` is the separator between pasted elements, defaults to ""

Examples

```
print(paste_datf2(inpt_datf=data.frame(c(1, 2, 1), c(33, 22, 55))))

#[1] "121" "332255"
```

pattern_generator *pattern_generator*

Description

Allow to create patterns which have a part that is varying randomly each time.

Usage

```
pattern_generator(base_, from_, nb, hmn = 1, after = 1, sep = "")
```

Arguments

| | |
|-------|---|
| base_ | is the pattern that will be kept |
| from_ | is the vector from which the elements of the random part will be generated |
| nb | is the number of random pattern chosen for the varying part |
| hmn | is how many of varying pattern from the same base will be created |
| after | is set to 1 by default, it means that the varying part will be after the fixed part, set to 0 if you want the varying part to be before |
| sep | is the separator between all patterns in the returned value |

Examples

```
print(pattern_generator(base_="oui", from_=c("er", "re", "ere"), nb=1, hmn=3))

# [1] "ouier" "ouire" "ouier"

print(pattern_generator(base_="oui", from_=c("er", "re", "ere"), nb=2, hmn=3, after=0, sep=" "))

# [1] "er-re-o-u-i" "ere-re-o-u-i" "ere-er-o-u-i"
```

pattern_gettr *pattern_gettr*

Description

Search for pattern(s) contained in a vector in another vector and return a list containing matched one (first index) and their position (second index) according to these rules: First case: Search for patterns strictly, it means that the searched pattern(s) will be matched only if the patterns contained in the vector that is being explored by the function are present like this c("pattern_searched", "other", ..., "pattern_searched") and not as c("other_thing pattern_searched other_thing", "other", ..., "pattern_searched other_thing") Second case: It is the opposite to the first case, it means that if the pattern is partially present like in the first position and the last, it will be considered like a matched pattern. REGEX can also be used as pattern

Usage

```
pattern_gettr(
  word_,
  vct,
  occ = c(1),
  strict,
  btwn,
  all_in_word = "yes",
  notatall = "###"
)
```

Arguments

| | |
|--------------------------|---|
| <code>word_</code> | is the vector containing the patterns |
| <code>vct</code> | is the vector being searched for patterns |
| <code>occ</code> | a vector containing the occurrence of the pattern in <code>word_</code> to be matched in the vector being searched, if the occurrence is 2 for the nth pattern in <code>word_</code> and only one occurrence is found in <code>vct</code> so no pattern will be matched, put "forever" to no longer depend on the occurrence for the associated pattern |
| <code>strict</code> | a vector containing the "strict" condition for each nth vector in <code>word_</code> ("strict" is the string to activate this option) |
| <code>btwn</code> | is a vector containing the condition ("yes" to activate this option) meaning that if "yes", all elements between two matched pattern in <code>vct</code> will be returned , so the patterns you enter in <code>word_</code> have to be in the order you think it will appear in <code>vct</code> |
| <code>all_in_word</code> | is a value (default set to "yes", "no" to activate this option) that, if activated, won't authorized a previous matched pattern to be matched again |
| <code>notatall</code> | is a string that you are sure is not present in <code>vct</code> |

Examples

```
print(pattern_gettr(word_=c("oui", "non", "erer"), vct=c("oui", "oui", "non", "oui",
  "non", "opp", "opp", "erer", "non", "ok"), occ=c(1, 2, 1),
  btwn=c("no", "yes", "no"), strict=c("no", "no", "ee")))

#[[1]]
#[1] 1 5 8
#
#[[2]]
#[1] "oui" "non" "opp" "opp" "erer"
```

pattern_tuning *pattern_tuning*

Description

Allow to tune a pattern very precisely and output a vector containing its variations n times.

Usage

```
pattern_tuning(
  patrn,
  spe_nb,
  spe_l,
  exclude_type,
  hmn = 1,
  rg = c(1, nchar(patrnr))
)
```

Arguments

| | |
|--------------|---|
| patrn | is the character that will be tuned |
| spe_nb | is the number of new character that will be replaced |
| spe_l | is the source vector from which the new characters will replace old ones |
| exclude_type | is character that won't be replaced |
| hmn | is how many output the function will return |
| rg | is a vector with two parameters (index of the first letter that will be replaced, index of the last letter that will be replaced) default is set to all the letters from the source pattern |

Examples

```
print(pattern_tuning(patrnr="oui", spe_nb=2, spe_l=c("e", "r", "T", "O"), exclude_type="o")
# [1] "orT" "oTr" "oOi"
```

| | |
|---------------|----------------------|
| power_to_char | <i>power_to_char</i> |
|---------------|----------------------|

Description

Convert a scientific number to a string representing normally the number.

Usage

```
power_to_char(inpt_v = c())
```

Arguments

| | |
|--------|--|
| inpt_v | is the input vector containing scientific number, but also other elements that won't be taken in count |
|--------|--|

Examples

```
print(power_to_char(inpt_v = c(22 * 10000000, 12, 9 * 0.0000002)))
# [1] "2200000000" "12" "0.0000018"
```

```
pre_to_post_idx      pre_to_post_idx
```

Description

Allow to convert indexes from a pre-vector to post-indexes based on a current vector, see examples

Usage

```
pre_to_post_idx(inpt_v = c(), inpt_idx = c(1:length(inppt_v)))
```

Arguments

`inpt_v` is the new vector
`inpt_idx` is the vector containing the pre-indexes

Examples

```
print(pre_to_post_idx(inpt_v = c("oui", "no", "eee"), inpt_idx = c(1:8)))
```

```
[1] 1 1 1 2 2 3 3 3
```

As if the first vector was `c("o", "u", "i", "n", "o", "e", "e", "e")`

```
ptrn_switchr      ptrn_switchr
```

Description

Allow to switch, copy pattern for each element in a vector. Here a pattern is the values that are separated by a same separator. Example: "xx-xxx-xx" or "xx/xx/xxxx". The xx like values can be swiched or copied from whatever index to whatever index. Here, the index is like this 1-2-3 etcetera, it is relative of the separator.

Usage

```
ptrn_switchr(inpt_l, f_idx_l = c(), t_idx_l = c(), sep = "-", default_val = NA)
```

Arguments

`inpt_l` is the input vector
`f_idx_l` is a vector containing the indexes of the pattern you want to be altered.
`t_idx_l` is a vector containing the indexes to which the indexes in `f_idx_l` are related.
`sep` is the separator, defaults to "-"
`default_val` is the default value , if not set to NA, of the pattern at the indexes in `f_idx_l`. If it is not set to NA, you do not need to fill `t_idx_l` because this is the vector containing the indexes of the patterns that will be set as new values relatively to the indexes in `f_idx_l`. Defaults to NA.

Examples

```
print(ptrn_switchr(inpt_l=c("2022-01-11", "2022-01-14", "2022-01-21",
"2022-01-01"), f_idx_l=c(1, 2, 3), t_idx_l=c(3, 2, 1)))

#[1] "11-01-2022" "14-01-2022" "21-01-2022" "01-01-2022"

print(ptrn_switchr(inpt_l=c("2022-01-11", "2022-01-14", "2022-01-21",
"2022-01-01"), f_idx_l=c(1), default_val="ee"))

#[1] "ee-01-11" "ee-01-14" "ee-01-21" "ee-01-01"
```

ptrn_twkr

*ptrn_twkr***Description**

Allow to modify the pattern length of element in a vector according to arguments. What is here defined as a pattern is something like this xx-xx-xx or xx/xx/xxx... So it is defined by the separator

Usage

```
ptrn_twkr(
  inpt_l,
  depth = "max",
  sep = "-",
  default_val = "0",
  add_sep = TRUE,
  end_ = TRUE
)
```

Arguments

| | |
|-------------|---|
| inpt_l | is the input vector |
| depth | is the number (numeric) of separator it will keep as a result. To keep the number of separator of the element that has the minimum amount of separator do depth="min" and depth="max" (character) for the opposite. This value defaults to "max". |
| sep | is the separator of the pattern, defaults to "-" |
| default_val | is the default val that will be placed between the separator, defaults to "00" |
| add_sep | defaults to TRUE. If set to FALSE, it will remove the separator for the patterns that are included in the interval between the depth amount of separator and the actual number of separator of the element. |
| end_ | is if the default_val will be added at the end or at the beginning of each element that lacks length compared to depth |

Examples

```
v <- c("2012-06-22", "2012-06-23", "2022-09-12", "2022")

ptrn_twkr(inpt_l=v, depth="max", sep="-", default_val="00", add_sep=TRUE)

#[1] "2012-06-22" "2012-06-23" "2022-09-12" "2022-00-00"

ptrn_twkr(inpt_l=v, depth=1, sep="-", default_val="00", add_sep=TRUE)

#[1] "2012-06" "2012-06" "2022-09" "2022-00"

ptrn_twkr(inpt_l=v, depth="max", sep="-", default_val="00", add_sep=TRUE, end_=FALSE)

#[1] "2012-06-22" "2012-06-23" "2022-09-12" "00-00-2022"
```

| | |
|-----------------|------------------------|
| read_edm_parser | <i>read_edm_parser</i> |
|-----------------|------------------------|

Description

Allow to read data from edm parsed dataset, see examples

Usage

```
read_edm_parser(inpt, to_find_v = c())
```

Arguments

| | |
|-----------|--|
| inpt | is the input dataset |
| to_find_v | is the vector containing the path to find the data, see examples |

Examples

```
print(read_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))",
  to_find_v = c("ok", "oui", "rr", "rr2")))

[1] "6"

print(read_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))", to
  find_v = c("ok", "oui", "rr", "rr2")))

[1] "56"

print(read_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))", to
  find_v = c("ok", "oui", "rr", "rr2")))

[1] "56"
```

| | |
|------------|-------------------|
| rearangr_v | <i>rearangr_v</i> |
|------------|-------------------|

Description

Rearranges a vector "w_v" according to another vector "inpt_v". inpt_v contains a sequence of number. inpt_v and w_v have the same size and their indexes are related. The output will be a vector containing all the elements of w_v rearranges in descending or asending order according to inpt_v

Usage

```
rearangr_v(inpt_v, w_v, how = "increasing")
```

Arguments

| | |
|--------|---|
| inpt_v | is the vector that contains the sequence of number |
| w_v | is the vector containing the elements related to inpt_v |
| how | is the way the elements of w_v will be outputed according to if inpt_v will be sorted ascendigly or descendigly |

Examples

```
print(rearangr_v(inpt_v=c(23, 21, 56), w_v=c("oui", "peut", "non"), how="decreasing"))
#[1] "non" "oui" "peut"
```

| | |
|------------------|-------------------------|
| regex_spe_detect | <i>regex_spe_detect</i> |
|------------------|-------------------------|

Description

Takes a character as input and returns its regex-friendly character for R.

Usage

```
regex_spe_detect(inpt)
```

Arguments

| | |
|------|---------------------|
| inpt | the input character |
|------|---------------------|

Examples

```
vec <- multitud(l=list(c("a", "b"), c("1", "2"), c("A", "Z", "E"), c("Q", "F")), sep_="/")

print(vec)

# [1] "a/1/A/Q" "b/1/A/Q" "a/2/A/Q" "b/2/A/Q" "a/1/Z/Q" "b/1/Z/Q" "a/2/Z/Q"
# [8] "b/2/Z/Q" "a/1/E/Q" "b/1/E/Q" "a/2/E/Q" "b/2/E/Q" "a/1/A/F" "b/1/A/F"
# [15] "a/2/A/F" "b/2/A/F" "a/1/Z/F" "b/1/Z/F" "a/2/Z/F" "b/2/Z/F" "a/1/E/F"
# [22] "b/1/E/F" "a/2/E/F" "b/2/E/F"

print(regroupr(inpt_v=vec, sep_="/"))

# [1] "a/1/1/1" "a/1/2/2" "a/1/3/3" "a/1/4/4" "a/1/5/5" "a/1/6/6"
# [7] "a/2/7/7" "a/2/8/8" "a/2/9/9" "a/2/10/10" "a/2/11/11" "a/2/12/12"
# [13] "b/1/13/13" "b/1/14/14" "b/1/15/15" "b/1/16/16" "b/1/17/17" "b/1/18/18"
# [19] "b/2/19/19" "b/2/20/20" "b/2/21/21" "b/2/22/22" "b/2/23/23" "b/2/24/24"

vec <- vec[-2]

print(regroupr(inpt_v=vec, sep_="/"))

# [1] "a/1/1/1" "a/1/2/2" "a/1/3/3" "a/1/4/4" "a/1/5/5" "a/1/6/6"
# [7] "a/2/7/7" "a/2/8/8" "a/2/9/9" "a/2/10/10" "a/2/11/11" "a/2/12/12"
# [13] "b/1/13/13" "b/1/14/14" "b/1/15/15" "b/1/16/16" "b/1/17/17" "b/2/18/18"
# [19] "b/2/19/19" "b/2/20/20" "b/2/21/21" "b/2/22/22" "b/2/23/23"

print(regroupr(inpt_v=vec, sep_="/", order=c(4:1)))

# [1] "1/1/A/Q" "2/2/A/Q" "3/3/A/Q" "4/4/A/Q" "5/5/Z/Q" "6/6/Z/Q"
# [7] "7/7/Z/Q" "8/8/Z/Q" "9/9/E/Q" "10/10/E/Q" "11/11/E/Q" "12/12/E/Q"
# [13] "13/13/A/F" "14/14/A/F" "15/15/A/F" "16/16/A/F" "17/17/Z/F" "18/18/Z/F"
# [19] "19/19/Z/F" "20/20/Z/F" "21/21/E/F" "22/22/E/F" "23/23/E/F" "24/24/E/F"
```

rm_na_rows

rm_na_rows

Description

Allow to remove certain rows that contains NA, see examples.

Usage

```
rm_na_rows(inpt_datf, flagged_vals = c())
```

Arguments

`inpt_datf` is the input dataframe

`flagged_vals` is a vector containing the characters that will drop any rows that contains it

Examples

```
datf <- data.frame(c(1, 2, NA, 4), c(1:4))
print(datf)
```

```
  c.1..2..NA..4. c.1.4.
1              1      1
2              2      2
3             NA      3
4              4      4
```

```
print(rm_na_rows(inpt_datf = datf))
```

```
  c.1..2..NA..4. c.1.4.
1              1      1
2              2      2
4              4      4
```

rm_rows

rm_rows

Description

Allow to remove certain rows that contains certains characters, see examples.

Usage

```
rm_rows(inpt_datf, flagged_vals = c())
```

Arguments

`inpt_datf` is the input dataframe

`flagged_vals` is a vector containing the characters that will drop any rows that contains it

Examples

```
datf <- data.frame(c(1, 2, NA, 4), c(1:4))
print(datf)
```

```
  c.1..2..NA..4. c.1.4.
1              1      1
2              2      2
3             NA      3
4              4      4
```

```
print(rm_rows(inpt_datf = datf, flagged_vals = c(1, 4)))
```

```
  c.1..2..NA..4. c.1.4.
2              2      2
3             NA      3
```

| | |
|-------------------------|-------------------|
| <code>row_to_col</code> | <i>row_to_col</i> |
|-------------------------|-------------------|

Description

Allow to reverse a dataframe (rows become cols and cols become rows)

Usage

```
row_to_col(inpt_datf)
```

Arguments

`inpt_datf` is the inout dataframe

Examples

```
datf_test <- data.frame(c(1, 11), c(2, 10), c(3, 9), c(4, 8))

print(datf_test)

  c.1..11. c.2..10. c.3..9. c.4..8.
1         1         2         3         4
2        11        10         9         8

print(row_to_col(inpt_datf = datf_test))

  1  2
1 1 11
2 2 10
3 3  9
4 4  8
```

| | |
|----------------------|----------------|
| <code>r_print</code> | <i>r_print</i> |
|----------------------|----------------|

Description

Allow to print vector elements in one row.

Usage

```
r_print(inpt_v, sep_ = "and", begn = "This is", end = ", voila!")
```

Arguments

- `inpt_v` is the input vector
- `sep_` is the separator between each elements
- `begn` is the character put at the beginning of the print
- `end` is the character put at the end of the print

Examples

```
print(r_print(inpt_v=c(1:33)))

#[1] "This is  1 and 2 and 3 and 4 and 5 and 6 and 7 and 8 and 9 and 10 and 11 and 12 and
#and 14 and 15 and 16 and 17 and 18 and 19 and 20 and 21 and 22 and 23 and 24 and 25 and
#and 27 and 28 and 29 and 30 and 31 and 32 and 33 and , voila!"
```

save_untl

save_untl

Description

Get the elements in each vector from a list that are located before certain values

Usage

```
save_untl(inpt_l = list(), val_to_stop_v = c())
```

Arguments

`inpt_l` is the input list containing all the vectors

`val_to_stop_v` is a vector containing the values that marks the end of the vectors returned in the returned list, see the examples

Examples

```
print(save_untl(inpt_l=list(c(1:4), c(1, 1, 3, 4), c(1, 2, 4, 3)), val_to_stop_v=c(3, 4))

#[[1]]
#[1] 1 2
#
#[[2]]
#[1] 1 1
#
#[[3]]
#[1] 1 2

print(save_untl(inpt_l=list(c(1:4), c(1, 1, 3, 4), c(1, 2, 4, 3)), val_to_stop_v=c(3))

#[[1]]
#[1] 1 2
#
#[[2]]
#[1] 1 1
#
#[[3]]
#[1] 1 2 4
```

see_datf

see_datf

Description

Allow to return a dataframe with special value cells (ex: TRUE) where the condition entered are respected and another special value cell (ex: FALSE) where these are not

Usage

```
see_datf(
  datf,
  condition_l,
  val_l,
  conjunction_l = c(),
  rt_val = TRUE,
  f_val = FALSE
)
```

Arguments

| | |
|---------------|--|
| datf | is the input dataframe |
| condition_l | is the vector of the possible conditions ("==", ">", "<", "!=", "%%", "reg", "not_reg", "sup_nchar", "inf_nchar", "nchar") (equal to some elements in a vector, greater than, lower than, not equal to, is divisible by, the regex condition returns TRUE, the regex condition returns FALSE, the length of the elements is strictly superior to X, the length of the element is strictly inferior to X, the length of the element is equal to one element in a vector), you can put the same condition n times. |
| val_l | is the list of vectors containing the values or vector of values related to condition_l (so the vector of values has to be placed in the same order) |
| conjunction_l | contains the and or conjunctions, so if the length of condition_l is equal to 3, there will be 2 conjunctions. If the length of conjunction_l is inferior to the length of condition_l minus 1, conjunction_l will match its goal length value with its last argument as the last arguments. For example, c("&", "l", "&") with a goal length value of 5 -> c("&", "l", "&", "&", "&") |
| rt_val | is a special value cell returned when the conditions are respected |
| f_val | is a special value cell returned when the conditions are not respected |

Details

This function will return an error if number only comparative conditions are given in addition to having character values in the input dataframe.

Examples

```
datf1 <- data.frame(c(1, 2, 4), c("a", "a", "zu"))

print(see_datf(datf=datf1, condition_l=c("nchar"), val_l=list(c(1))))
```

```

#      X1      X2
#1 TRUE  TRUE
#2 TRUE  TRUE
#3 TRUE FALSE

print(see_datf(datf=datf1, condition_l=c("=="), val_l=list(c("a", 1))))

#      X1      X2
#1 TRUE  TRUE
#2 FALSE TRUE
#3 FALSE FALSE

print(see_datf(datf=datf1, condition_l=c("nchar"), val_l=list(c(1, 2))))

#      X1      X2
#1 TRUE TRUE
#2 TRUE TRUE
#3 TRUE TRUE

print(see_datf(datf=datf1, condition_l=c("not_reg"), val_l=list("[a-z]")))

#      X1      X2
#1 TRUE FALSE
#2 TRUE FALSE
#3 TRUE FALSE

```

see_diff

see_diff

Description

Output the opposite of intersect(a, b). Already seen at: <https://stackoverflow.com/questions/19797954/function-to-find-symmetric-difference-opposite-of-intersection-in-r>

Usage

```
see_diff(vec1 = c(), vec2 = c())
```

Arguments

| | |
|------|----------------------|
| vec1 | is the first vector |
| vec2 | is the second vector |

Examples

```
print(see_diff(c(1:7), c(4:12)))

[1] 1 2 3 8 9 10 11 12
```

| | |
|---------------------------|---------------------|
| <code>see_diff_all</code> | <i>see_diff_all</i> |
|---------------------------|---------------------|

Description

Allow to perform the opposite of intersect function to n vectors.

Usage

```
see_diff_all(...)
```

Arguments

`...` are all the input vectors

Examples

```
vec1 <- c(3:6)
vec2 <- c(1:8)
vec3 <- c(12:16)

print(see_diff_all(vec1, vec2))

[1] 1 2 7 8

print(see_diff_all(vec1, vec2, vec3))

[1] 3 4 5 6 1 2 7 8 12 13 14 15 16
```

| | |
|-----------------------|-----------------|
| <code>see_file</code> | <i>see_file</i> |
|-----------------------|-----------------|

Description

Allow to get the filename or its extension

Usage

```
see_file(string_, index_ext = 1, ext = TRUE)
```

Arguments

| | |
|------------------------|--|
| <code>string_</code> | is the input string |
| <code>index_ext</code> | is the occurrence of the dot that separates the filename and its extension |
| <code>ext</code> | is a boolean that if set to TRUE, will return the file extension and if set to FALSE, will return filename |

Examples

```
print(see_file(string_="file.abc.xyz"))

#[1] ".abc.xyz"

print(see_file(string_="file.abc.xyz", ext=FALSE))

#[1] "file"

print(see_file(string_="file.abc.xyz", index_ext=2))

#[1] ".xyz"
```

see_idx

see_idx

Description

Returns a boolean vector to see if a set of elements contained in v1 is also contained in another vector (v2)

Usage

```
see_idx(v1, v2)
```

Arguments

| | |
|----|----------------------|
| v1 | is the first vector |
| v2 | is the second vector |

Examples

```
print(see_idx(v1=c("oui", "non", "peut", "oo"), v2=c("oui", "peut", "oui")))

#[1] TRUE FALSE TRUE FALSE
```

see_inside

see_inside

Description

Return a list containing all the column of the files in the current directory with a chosen file extension and its associated file and sheet if xlsx. For example if i have 2 files "out.csv" with 2 columns and "out.xlsx" with 1 column for its first sheet and 2 for its second one, the return will look like this: c(column_1, column_2, column_3, column_4, column_5, unique_separator, "1-2-out.csv", "3-3-sheet_1-out.xlsx", 4-5-sheet_2-out.xlsx)

Usage

```
see_inside(  
  pattern_,  
  path_ = ".",  
  sep_ = c(", "),  
  unique_sep = "#####",  
  rec = FALSE  
)
```

Arguments

- pattern_ is a vector containin the file extension of the spreadsheets ("xlsx", "csv"...)
- path_ is the path where are located the files
- sep_ is a vector containing the separator for each csv type file in order following the operating system file order, if the vector does not match the number of the csv files found, it will assume the separator for the rest of the files is the same as the last csv file found. It means that if you know the separator is the same for all the csv type files, you just have to put the separator once in the vector.
- unique_sep is a pattern that you know will never be in your input files
- rec is a boolean allows to get files recursively if set to TRUE, defaults to TRUE If x is the return value, to see all the files name, position of the columns and possible sheet name associanted with, do the following:

| | |
|-------------|--------------------|
| see_in_grep | <i>see_in_grep</i> |
|-------------|--------------------|

Description

Allow to get the indices of the elements of a vector that contains certyain patterns. The type of the output may change in function of the input vectors, see examples

Usage

```
see_in_grep(from_v = c(), in_v = c())
```

Arguments

- from_v is the vector that may contains elements that contains the same patterns that those in in_v, see examples
- in_v is a vector that contains the patterns to find

Examples

```
print(see_in_grep(from_v = c("oui", "non", "peut"),  
  in_v = c("ou", "eu", "plm"))  
  
      ou      eu      plm  
      1      3      -1  
  
print(see_in_grep(from_v = c("oui", "non", "peut", "oui"),
```



```

        in_v = c("ou", "eu", "plm"))

$ou
[1] 1 4

$eu
[1] 3

$plm
[1] -1

```

see_in_l

see_in_l

Description

Allow to get the patterns that are present in the elements of a vector, see examples

Usage

```
see_in_l(from_v = c(), in_v = c())
```

Arguments

| | |
|--------|---|
| from_v | is the vector that may contains elements that contains the same patterns that those in in_v, see examples |
| in_v | is a vector that contains the patterns to find |

Examples

```

print(see_in_l(from_v = c("oui", "non", "peut"),
  in_v = c("ou", "pe", "plm")))

   ou    pe    plm
TRUE  TRUE FALSE

```

see_mode

see_mode

Description

Allow to get the mode of a vector, see examples.

Usage

```
see_mode(inpt_v = c())
```

Arguments

| | |
|--------|---------------------|
| inpt_v | is the input vector |
|--------|---------------------|

Examples

```
print(see_mode(inpt_v = c(1, 1, 2, 2, 2, 3, 1, 2)))

[1] 2

print(see_mode(inpt_v = c(1, 1, 2, 2, 2, 3, 1)))

[1] 1
```

| | |
|---------------|----------------------|
| selected_char | <i>selected_char</i> |
|---------------|----------------------|

Description

Allow to generate a char based on a combinaison on characters from a vector and a number

Usage

```
selected_char(n, base_char = letters)
```

Arguments

| | |
|-----------|---|
| n | is how many sequence of numbers will be generated |
| base_char | is the vector containing the elements from which the character is generated |

Examples

```
print(selected_char(1222))

[1] "zta"
```

| | |
|-------------------|--------------------------|
| sequence_na_mean1 | <i>sequence_na_mean1</i> |
|-------------------|--------------------------|

Description

In a dataframe generated by the function `historic_sequence`, convert all NA to the mean of the values at the same variable for the individual at the id where the NA occurs, see examples (only accepts numeric variables)

Usage

```
sequence_na_mean1(inpt_datf, bf_, step = 1)
```

Arguments

| | |
|-----------|------------------------|
| inpt_datf | is the input dataframe |
|-----------|------------------------|

Examples

```

set.seed(123)
var1 <- round(runif(n = 14, min = 100, max = 122))
set.seed(123)
var2 <- round(runif(n = 14, min = 14, max = 20))

datf <- data.frame("ids" = c(20, 20, 20, 20, 19, 19, 19, 18, 18, 18, 18,
17, 17, 17),
"individual" = c("oui", "non", "peut1", "peut2",
"oui", "peut1", "peut2"),
"var1" = var1,
"var2" = var2)
datf <- historic_sequence(inpt_datf = datf, bf_ = 2)
datf[3, 4] <- NA
datf[6, 4] <- NA
datf[1, 3] <- NA
print(datf)

```

| | id_seq | individual | var1-1 | var1-2 | var2-1 | var2-2 |
|---|--------|------------|--------|--------|--------|--------|
| 1 | 20 | oui | NA | 120 | 20 | 19 |
| 2 | 20 | non | NA | 112 | NA | 17 |
| 3 | 20 | peut1 | 101 | NA | 14 | 17 |
| 4 | 20 | peut2 | 112 | 121 | 17 | 20 |
| 5 | 19 | oui | 120 | 110 | 19 | 17 |
| 6 | 19 | peut1 | 110 | NA | 17 | 18 |
| 7 | 19 | peut2 | 121 | 113 | 20 | 17 |

```
print(sequence_na_mean1(inpt_datf = datf, bf_ = 2))
```

| | id_seq | individual | var1-1 | var1-2 | var2-1 | var2-2 |
|---|--------|------------|--------|--------|--------|--------|
| 1 | 20 | oui | 115 | 120.0 | 20 | 19 |
| 2 | 20 | non | 112 | 112.0 | 17 | 17 |
| 3 | 20 | peut1 | 101 | 105.5 | 14 | 17 |
| 4 | 20 | peut2 | 112 | 121.0 | 17 | 20 |
| 5 | 19 | oui | 120 | 110.0 | 19 | 17 |
| 6 | 19 | peut1 | 110 | 105.5 | 17 | 18 |
| 7 | 19 | peut2 | 121 | 113.0 | 20 | 17 |

| | |
|------------------|-------------------------|
| sequence_na_med1 | <i>sequence_na_med1</i> |
|------------------|-------------------------|

Description

In a dataframe generated by the function `historic_sequence`, convert all NA to the median of the values at the same variable for the individual at the id where the NA occurs, see examples (only accepts numeric variables)

Usage

```
sequence_na_med1(inpt_datf, bf_, step = 1)
```

Arguments

| | |
|------------------------|--|
| <code>inpt_datf</code> | is the input dataframe |
| <code>bf_</code> | is how at how many $n - 1$ we look for the value of the variables for the individual at time index n |
| <code>step</code> | is the base step for the time indexes, step of one year (or any time unit), two year (or any time unit)? |

Examples

```
set.seed(123)
var1 <- round(runif(n = 14, min = 100, max = 122))
set.seed(123)
var2 <- round(runif(n = 14, min = 14, max = 20))

datf <- data.frame("ids" = c(20, 20, 20, 20, 19, 19, 19, 18, 18, 18, 18,
17, 17, 17),
"individual" = c("oui", "non", "peut1", "peut2",
"oui", "peut1", "peut2"),
"var1" = var1,
"var2" = var2)
datf <- historic_sequence(inpt_datf = datf, bf_ = 2)
datf[3, 4] <- NA
datf[6, 4] <- NA
datf[1, 3] <- NA
print(datf)
```

| | id_seq | individual | var1-1 | var1-2 | var2-1 | var2-2 |
|---|--------|------------|--------|--------|--------|--------|
| 1 | 20 | oui | NA | 120 | 20 | 19 |
| 2 | 20 | non | NA | 112 | NA | 17 |
| 3 | 20 | peut1 | 101 | NA | 14 | 17 |
| 4 | 20 | peut2 | 112 | 121 | 17 | 20 |
| 5 | 19 | oui | 120 | 110 | 19 | 17 |
| 6 | 19 | peut1 | 110 | NA | 17 | 18 |
| 7 | 19 | peut2 | 121 | 113 | 20 | 17 |

```
print(sequence_na_med1(inpt_datf = datf, bf_ = 2))
```

| | id_seq | individual | var1-1 | var1-2 | var2-1 | var2-2 |
|---|--------|------------|--------|--------|--------|--------|
| 1 | 20 | oui | 115 | 120.0 | 20 | 19 |
| 2 | 20 | non | 112 | 112.0 | 17 | 17 |
| 3 | 20 | peut1 | 101 | 105.5 | 14 | 17 |
| 4 | 20 | peut2 | 112 | 121.0 | 17 | 20 |
| 5 | 19 | oui | 120 | 110.0 | 19 | 17 |
| 6 | 19 | peut1 | 110 | 105.5 | 17 | 18 |
| 7 | 19 | peut2 | 121 | 113.0 | 20 | 17 |

sort_date

sort_date

Description

Allow to sort any vector containing a date, from any kind of format (my, hdmy, ymd ...), see examples.

Usage

```
sort_date(inpt_v, frmt, sep_ = "-", ascending = FALSE, give = "value")
```

Arguments

| | |
|------------------------|--|
| <code>inpt_v</code> | is the input vector containing all the dates |
| <code>frmt</code> | is the format of the dates, (any combinaison of letters "s" for second, "n", for minute, "h" for hour, "d" for day, "m" for month and "y" for year) |
| <code>sep_</code> | is the separator used for the dates |
| <code>ascending</code> | is the used to sort the dates |
| <code>give</code> | takes only two values "index" or "value", if <code>give == "index"</code> , the function will output the index of sorted dates from <code>inpt_v</code> , if <code>give == "value"</code> , the function will output the value, it means directly the sorted dates in <code>inpt_v</code> , see examples |

Examples

```
print(sort_date(inpt_v = c("01-11-2025", "08-08-1922", "12-04-1966")
, frmt = "dmy", sep_ = "-", ascending = TRUE, give = "value"))

[1] "08-08-1922" "12-04-1966" "01-11-2025"

print(sort_date(inpt_v = c("01-11-2025", "08-08-1922", "12-04-1966")
, frmt = "dmy", sep_ = "-", ascending = FALSE, give = "value"))

[1] "01-11-2025" "12-04-1966" "08-08-1922"

print(sort_date(inpt_v = c("01-11-2025", "08-08-1922", "12-04-1966")
, frmt = "dmy", sep_ = "-", ascending = TRUE, give = "index"))

[1] 2 3 1

print(sort_date(inpt_v = c("22-01-11-2025", "11-12-04-1966", "12-12-04-1966")
, frmt = "hdmy", sep_ = "-", ascending = FALSE, give = "value"))

[1] "22-01-11-2025" "12-12-04-1966" "11-12-04-1966"

print(sort_date(inpt_v = c("03-22-01-11-2025", "56-11-12-04-1966", "23-12-12-04-1966")
, frmt = "nhdmy", sep_ = "-", ascending = FALSE, give = "value"))

[1] "03-22-01-11-2025" "23-12-12-04-1966" "56-11-12-04-1966"
```

| | |
|-------------------------------|-------------------------|
| <code>sort_normal_qual</code> | <i>sort_normal_qual</i> |
|-------------------------------|-------------------------|

Description

Sort qualitative modalities that have their frequency normally distributed from an unordered dataset, see examples. This function uses an another algorithme than `choose_normal_qual2` which may be faster.

Usage

```
sort_normal_qual(inpt_datf)
```

Arguments

`inpt_datf` is the input dataframe, containing the values in the first column and their frequency in the second

Examples

```
sample_val <- round(rnorm(n = 2000, mean = 12, sd = 2), 1)
sample_freq <- unique_total(sample_val)
sample_qual <- infinite_char_seq(n = length(sample_freq))
datf_test <- data.frame(sample_qual, sample_freq)
datf_test[, 2] <- datf_test[, 2] / sum(datf_test[, 2]) # optional
```

```
print(datf_test)
```

```
      sample_qual sample_freq
1              a 0.208695652
2              b 0.234782609
3              c 0.321739130
4              d 0.339130435
5              e 0.330434783
6              f 0.069565217
7              g 0.234782609
8              h 0.400000000
9              i 0.347826087
10             j 0.043478261
11             k 0.278260870
12             l 0.286956522
13             m 0.243478261
14             n 0.147826087
15             o 0.234782609
16             p 0.252173913
17             q 0.417391304
18             r 0.095652174
19             s 0.313043478
20             t 0.008695652
21             u 0.130434783
22             v 0.391304348
23             w 0.113043478
24             x 0.295652174
25             y 0.243478261
26             z 0.382608696
27            aa 0.008695652
28            ab 0.347826087
29            ac 0.330434783
30            ad 0.321739130
31            ae 0.347826087
32            af 0.321739130
33            ag 0.173913043
34            ah 0.278260870
35            ai 0.278260870
36            aj 0.347826087
37            ak 0.026086957
```

| | | |
|----|----|-------------|
| 38 | al | 0.295652174 |
| 39 | am | 0.226086957 |
| 40 | an | 0.295652174 |
| 41 | ao | 0.234782609 |
| 42 | ap | 0.113043478 |
| 43 | aq | 0.234782609 |
| 44 | ar | 0.173913043 |
| 45 | as | 0.017391304 |
| 46 | at | 0.252173913 |
| 47 | au | 0.078260870 |
| 48 | av | 0.086956522 |
| 49 | aw | 0.278260870 |
| 50 | ax | 0.086956522 |
| 51 | ay | 0.200000000 |
| 52 | az | 0.295652174 |
| 53 | ba | 0.052173913 |
| 54 | bb | 0.165217391 |
| 55 | bc | 0.408695652 |
| 56 | bd | 0.269565217 |
| 57 | be | 0.104347826 |
| 58 | bf | 0.391304348 |
| 59 | bg | 0.104347826 |
| 60 | bh | 0.043478261 |
| 61 | bi | 0.200000000 |
| 62 | bj | 0.095652174 |
| 63 | bk | 0.191304348 |
| 64 | bl | 0.008695652 |
| 65 | bm | 0.165217391 |
| 66 | bn | 0.226086957 |
| 67 | bo | 0.086956522 |
| 68 | bp | 0.017391304 |
| 69 | bq | 0.121739130 |
| 70 | br | 0.234782609 |
| 71 | bs | 0.121739130 |
| 72 | bt | 0.078260870 |
| 73 | bu | 0.173913043 |
| 74 | bv | 0.104347826 |
| 75 | bw | 0.208695652 |
| 76 | bx | 0.017391304 |
| 77 | by | 0.243478261 |
| 78 | bz | 0.034782609 |
| 79 | ca | 0.017391304 |
| 80 | cb | 0.008695652 |
| 81 | cc | 0.173913043 |
| 82 | cd | 0.147826087 |
| 83 | ce | 0.060869565 |
| 84 | cf | 0.017391304 |
| 85 | cg | 0.060869565 |
| 86 | ch | 0.008695652 |
| 87 | ci | 0.208695652 |
| 88 | cj | 0.043478261 |
| 89 | ck | 0.052173913 |
| 90 | cl | 0.017391304 |
| 91 | cm | 0.017391304 |
| 92 | cn | 0.095652174 |
| 93 | co | 0.113043478 |
| 94 | cp | 0.017391304 |

```

95      cq 0.017391304
96      cr 0.026086957
97      cs 0.034782609
98      ct 0.017391304
99      cu 0.026086957
100     cv 0.026086957
101     cw 0.026086957
102     cx 0.017391304
103     cy 0.043478261
104     cz 0.008695652
105     da 0.034782609
106     db 0.017391304
107     dc 0.060869565
108     dd 0.008695652
109     de 0.008695652
110     df 0.017391304
111     dg 0.008695652
112     dh 0.008695652
113     di 0.017391304
114     dj 0.008695652
115     dk 0.008695652

```

```
print(sort_normal_qual(inpt_datf = datf_test))
```

```

0.00869565217391304 0.00869565217391304 0.00869565217391304 0.00869565217391304
      "aa"      "cb"      "cz"      "de"
0.00869565217391304 0.00869565217391304 0.0173913043478261 0.0173913043478261
      "dh"      "dk"      "bp"      "ca"
0.0173913043478261 0.0173913043478261 0.0173913043478261 0.0173913043478261
      "cl"      "cp"      "ct"      "db"
0.0173913043478261 0.0260869565217391 0.0260869565217391 0.0347826086956522
      "di"      "cr"      "cv"      "bz"
0.0347826086956522 0.0434782608695652 0.0434782608695652 0.0521739130434783
      "da"      "bh"      "cy"      "ck"
0.0608695652173913 0.0695652173913043 0.0782608695652174 0.0869565217391304
      "cg"      "f"      "bt"      "ax"
0.0956521739130435 0.0956521739130435 0.104347826086957 0.11304347826087
      "r"      "cn"      "bg"      "w"
0.11304347826087 0.121739130434783 0.147826086956522 0.165217391304348
      "co"      "bs"      "n"      "bb"
0.173913043478261 0.173913043478261 0.191304347826087 0.2
      "ag"      "bu"      "bk"      "bi"
0.208695652173913 0.226086956521739 0.234782608695652 0.234782608695652
      "bw"      "am"      "b"      "o"
0.234782608695652 0.243478260869565 0.243478260869565 0.252173913043478
      "aq"      "m"      "by"      "at"
0.278260869565217 0.278260869565217 0.28695652173913 0.295652173913043
      "k"      "ai"      "l"      "al"
0.295652173913043 0.321739130434783 0.321739130434783 0.330434782608696
      "az"      "c"      "af"      "ac"
0.347826086956522 0.347826086956522 0.382608695652174 0.391304347826087
      "i"      "ae"      "z"      "bf"
0.408695652173913 0.417391304347826 0.4 0.391304347826087
      "bc"      "q"      "h"      "v"
0.347826086956522 0.347826086956522 0.339130434782609 0.330434782608696
      "aj"      "ab"      "d"      "e"
0.321739130434783 0.31304347826087 0.295652173913043 0.295652173913043

```


| | | | |
|---------------------|---------------------|---------------------|---------------------|
| "ad" | "s" | "an" | "x" |
| 0.278260869565217 | 0.278260869565217 | 0.269565217391304 | 0.252173913043478 |
| "aw" | "ah" | "bd" | "p" |
| 0.243478260869565 | 0.234782608695652 | 0.234782608695652 | 0.234782608695652 |
| "y" | "br" | "ao" | "g" |
| 0.226086956521739 | 0.208695652173913 | 0.208695652173913 | 0.2 |
| "bn" | "ci" | "a" | "ay" |
| 0.173913043478261 | 0.173913043478261 | 0.165217391304348 | 0.147826086956522 |
| "cc" | "ar" | "bm" | "cd" |
| 0.130434782608696 | 0.121739130434783 | 0.11304347826087 | 0.104347826086957 |
| "u" | "bq" | "ap" | "bv" |
| 0.104347826086957 | 0.0956521739130435 | 0.0869565217391304 | 0.0869565217391304 |
| "be" | "bj" | "bo" | "av" |
| 0.0782608695652174 | 0.0608695652173913 | 0.0608695652173913 | 0.0521739130434783 |
| "au" | "dc" | "ce" | "ba" |
| 0.0434782608695652 | 0.0434782608695652 | 0.0347826086956522 | 0.0260869565217391 |
| "cj" | "j" | "cs" | "cw" |
| 0.0260869565217391 | 0.0260869565217391 | 0.0173913043478261 | 0.0173913043478261 |
| "cu" | "ak" | "df" | "cx" |
| 0.0173913043478261 | 0.0173913043478261 | 0.0173913043478261 | 0.0173913043478261 |
| "cq" | "cm" | "cf" | "bx" |
| 0.0173913043478261 | 0.00869565217391304 | 0.00869565217391304 | 0.00869565217391304 |
| "as" | "dj" | "dg" | "dd" |
| 0.00869565217391304 | 0.00869565217391304 | 0.00869565217391304 | |
| "ch" | "bl" | "t" | |

| | |
|-------------------|--------------------------|
| sort_normal_qual2 | <i>sort_normal_qual2</i> |
|-------------------|--------------------------|

Description

Sort qualitative modalities that have their frequency normally distributed from an unordered dataset, see examples. This function uses an another algorithym than choose_normal_qual which may be faster.

Usage

```
sort_normal_qual2(inpt_datf)
```

Arguments

`inpt_datf` is the input dataframe, containing the values in the first column and their frequency in the second

Examples

```
sample_val <- round(rnorm(n = 2000, mean = 12, sd = 2), 1)
sample_freq <- unique_total(sample_val)
sample_qual <- infinite_char_seq(n = length(sample_freq))
datf_test <- data.frame(sample_qual, sample_freq)
datf_test[, 2] <- datf_test[, 2] / sum(datf_test[, 2])

print(datf_test)
```

| | sample_qual | sample_freq |
|----|-------------|-------------|
| 1 | a | 0.208695652 |
| 2 | b | 0.234782609 |
| 3 | c | 0.321739130 |
| 4 | d | 0.339130435 |
| 5 | e | 0.330434783 |
| 6 | f | 0.069565217 |
| 7 | g | 0.234782609 |
| 8 | h | 0.400000000 |
| 9 | i | 0.347826087 |
| 10 | j | 0.043478261 |
| 11 | k | 0.278260870 |
| 12 | l | 0.286956522 |
| 13 | m | 0.243478261 |
| 14 | n | 0.147826087 |
| 15 | o | 0.234782609 |
| 16 | p | 0.252173913 |
| 17 | q | 0.417391304 |
| 18 | r | 0.095652174 |
| 19 | s | 0.313043478 |
| 20 | t | 0.008695652 |
| 21 | u | 0.130434783 |
| 22 | v | 0.391304348 |
| 23 | w | 0.113043478 |
| 24 | x | 0.295652174 |
| 25 | y | 0.243478261 |
| 26 | z | 0.382608696 |
| 27 | aa | 0.008695652 |
| 28 | ab | 0.347826087 |
| 29 | ac | 0.330434783 |
| 30 | ad | 0.321739130 |
| 31 | ae | 0.347826087 |
| 32 | af | 0.321739130 |
| 33 | ag | 0.173913043 |
| 34 | ah | 0.278260870 |
| 35 | ai | 0.278260870 |
| 36 | aj | 0.347826087 |
| 37 | ak | 0.026086957 |
| 38 | al | 0.295652174 |
| 39 | am | 0.226086957 |
| 40 | an | 0.295652174 |
| 41 | ao | 0.234782609 |
| 42 | ap | 0.113043478 |
| 43 | aq | 0.234782609 |
| 44 | ar | 0.173913043 |
| 45 | as | 0.017391304 |
| 46 | at | 0.252173913 |
| 47 | au | 0.078260870 |
| 48 | av | 0.086956522 |
| 49 | aw | 0.278260870 |
| 50 | ax | 0.086956522 |
| 51 | ay | 0.200000000 |
| 52 | az | 0.295652174 |
| 53 | ba | 0.052173913 |
| 54 | bb | 0.165217391 |
| 55 | bc | 0.408695652 |

| | | |
|-----|----|-------------|
| 56 | bd | 0.269565217 |
| 57 | be | 0.104347826 |
| 58 | bf | 0.391304348 |
| 59 | bg | 0.104347826 |
| 60 | bh | 0.043478261 |
| 61 | bi | 0.200000000 |
| 62 | bj | 0.095652174 |
| 63 | bk | 0.191304348 |
| 64 | bl | 0.008695652 |
| 65 | bm | 0.165217391 |
| 66 | bn | 0.226086957 |
| 67 | bo | 0.086956522 |
| 68 | bp | 0.017391304 |
| 69 | bq | 0.121739130 |
| 70 | br | 0.234782609 |
| 71 | bs | 0.121739130 |
| 72 | bt | 0.078260870 |
| 73 | bu | 0.173913043 |
| 74 | bv | 0.104347826 |
| 75 | bw | 0.208695652 |
| 76 | bx | 0.017391304 |
| 77 | by | 0.243478261 |
| 78 | bz | 0.034782609 |
| 79 | ca | 0.017391304 |
| 80 | cb | 0.008695652 |
| 81 | cc | 0.173913043 |
| 82 | cd | 0.147826087 |
| 83 | ce | 0.060869565 |
| 84 | cf | 0.017391304 |
| 85 | cg | 0.060869565 |
| 86 | ch | 0.008695652 |
| 87 | ci | 0.208695652 |
| 88 | cj | 0.043478261 |
| 89 | ck | 0.052173913 |
| 90 | cl | 0.017391304 |
| 91 | cm | 0.017391304 |
| 92 | cn | 0.095652174 |
| 93 | co | 0.113043478 |
| 94 | cp | 0.017391304 |
| 95 | cq | 0.017391304 |
| 96 | cr | 0.026086957 |
| 97 | cs | 0.034782609 |
| 98 | ct | 0.017391304 |
| 99 | cu | 0.026086957 |
| 100 | cv | 0.026086957 |
| 101 | cw | 0.026086957 |
| 102 | cx | 0.017391304 |
| 103 | cy | 0.043478261 |
| 104 | cz | 0.008695652 |
| 105 | da | 0.034782609 |
| 106 | db | 0.017391304 |
| 107 | dc | 0.060869565 |
| 108 | dd | 0.008695652 |
| 109 | de | 0.008695652 |
| 110 | df | 0.017391304 |
| 111 | dg | 0.008695652 |
| 112 | dh | 0.008695652 |

```

113          di 0.017391304
114          dj 0.008695652
115          dk 0.008695652

```

```
print(sort_normal_qual2(inpt_datf = datf_test))
```

```

0.00869565217391304 0.00869565217391304 0.00869565217391304 0.00869565217391304
      "aa"          "cb"          "cz"          "de"
0.00869565217391304 0.00869565217391304 0.0173913043478261 0.0173913043478261
      "dh"          "dk"          "bp"          "ca"
0.0173913043478261 0.0173913043478261 0.0173913043478261 0.0173913043478261
      "cl"          "cp"          "ct"          "db"
0.0173913043478261 0.0260869565217391 0.0260869565217391 0.0347826086956522
      "di"          "cr"          "cv"          "bz"
0.0347826086956522 0.0434782608695652 0.0434782608695652 0.0521739130434783
      "da"          "bh"          "cy"          "ck"
0.0608695652173913 0.0695652173913043 0.0782608695652174 0.0869565217391304
      "cg"          "f"          "bt"          "ax"
0.0956521739130435 0.0956521739130435 0.104347826086957 0.11304347826087
      "r"          "cn"          "bg"          "w"
0.11304347826087 0.121739130434783 0.147826086956522 0.165217391304348
      "co"          "bs"          "n"          "bb"
0.173913043478261 0.173913043478261 0.191304347826087 0.2
      "ag"          "bu"          "bk"          "bi"
0.208695652173913 0.226086956521739 0.234782608695652 0.234782608695652
      "bw"          "am"          "b"          "o"
0.234782608695652 0.243478260869565 0.243478260869565 0.252173913043478
      "aq"          "m"          "by"          "at"
0.278260869565217 0.278260869565217 0.28695652173913 0.295652173913043
      "k"          "ai"          "l"          "al"
0.295652173913043 0.321739130434783 0.321739130434783 0.330434782608696
      "az"          "c"          "af"          "ac"
0.347826086956522 0.347826086956522 0.382608695652174 0.391304347826087
      "i"          "ae"          "z"          "bf"
0.408695652173913 0.417391304347826 0.4 0.391304347826087
      "bc"          "q"          "h"          "v"
0.347826086956522 0.347826086956522 0.339130434782609 0.330434782608696
      "aj"          "ab"          "d"          "e"
0.321739130434783 0.31304347826087 0.295652173913043 0.295652173913043
      "ad"          "s"          "an"          "x"
0.278260869565217 0.278260869565217 0.269565217391304 0.252173913043478
      "aw"          "ah"          "bd"          "p"
0.243478260869565 0.234782608695652 0.234782608695652 0.234782608695652
      "y"          "br"          "ao"          "g"
0.226086956521739 0.208695652173913 0.208695652173913 0.2
      "bn"          "ci"          "a"          "ay"
0.173913043478261 0.173913043478261 0.165217391304348 0.147826086956522
      "cc"          "ar"          "bm"          "cd"
0.130434782608696 0.121739130434783 0.11304347826087 0.104347826086957
      "u"          "bq"          "ap"          "bv"
0.104347826086957 0.0956521739130435 0.0869565217391304 0.0869565217391304
      "be"          "bj"          "bo"          "av"
0.0782608695652174 0.0608695652173913 0.0608695652173913 0.0521739130434783
      "au"          "dc"          "ce"          "ba"
0.0434782608695652 0.0434782608695652 0.0347826086956522 0.0260869565217391
      "cj"          "j"          "cs"          "cw"
0.0260869565217391 0.0260869565217391 0.0173913043478261 0.0173913043478261

```

```

      "cu"          "ak"          "df"          "cx"
0.0173913043478261 0.0173913043478261 0.0173913043478261 0.0173913043478261
      "cq"          "cm"          "cf"          "bx"
0.0173913043478261 0.00869565217391304 0.00869565217391304 0.00869565217391304
      "as"          "dj"          "dg"          "dd"
0.00869565217391304 0.00869565217391304 0.00869565217391304
      "ch"          "bl"          "t"
```

| | |
|---------------|----------------------|
| split_by_step | <i>split_by_step</i> |
|---------------|----------------------|

Description

Allow to split a string or a vector of strings by a step, see examples.

Usage

```
split_by_step(inpt_v, by)
```

Arguments

- inpt_v is the input character or vector of characters
- by is the step

Examples

```
print(split_by_step(inpt_v = c("o", "u", "i", "n", "o", "o", "u", "i", "o", "Z"), by = 2)
[1] "ou" "in" "oo" "ui" "oZ"

print(split_by_step(inpt_v = c("o", "u", "i", "n", "o", "o", "u", "i", "o", "Z"), by = 3)
[1] "oui" "noo" "uio" "Z"

print(split_by_step(inpt_v = c("o", "u", "i", "n", "o", "o", "u", "i", "o", "Z"), by = 4)
[1] "ouin" "ooui" "oZ"

print(split_by_step(inpt_v = 'ouinoouioz', by = 4))
[1] "ouin" "ooui" "oZ"
```

| | |
|------------------|-------------------------|
| str_remove_until | <i>str_remove_until</i> |
|------------------|-------------------------|

Description

Allow to remove pattern within elements from a vector precisely according to their occurrence.

Usage

```
str_remove_until(
  inpt_v,
  ptrn_rm_v = c(),
  until = list(c(1)),
  nvr_following_ptrn = "NA"
)
```

Arguments

| | |
|--------------------|---|
| inpt_v | is the input vector |
| ptrn_rm_v | is a vector containing the patterns to remove |
| until | is a list containing the occurrence(s) of each pattern to remove in the elements. |
| nvr_following_ptrn | is a sequel of characters that you are sure is not present in any of the elements in inpt_v |

Examples

```
vec <- c("45/56-/98mm", "45/56-/98mm", "45/56-/98-mm//")

print(str_remove_until(inpt_v=vec, ptrn_rm_v=c("-", "/"), until=list(c("max"), c(1))))

#[1] "4556/98mm"      "4556/98mm"      "4556/98mm//"

print(str_remove_until(inpt_v=vec, ptrn_rm_v=c("-", "/"), until=list(c("max"), c(1:2))))

#[1] "455698mm"       "455698mm"       "455698mm//"

print(str_remove_until(inpt_v=vec[1], ptrn_rm_v=c("-", "/"), until=c("max")))

#[1] "455698mm" "455698mm" "455698mm"
```

| | |
|----------|-----------------|
| sub_mult | <i>sub_mult</i> |
|----------|-----------------|

Description

Performs a sub operation with n patterns and replacements.

Usage

```
sub_mult(inpt_v, pattern_v = c(), replacement_v = c())
```

Arguments

`inpt_v` is a vector containing all the elements that contains expressions to be substituted

`pattern_v` is a vector containing all the patterns to be substituted in any elements of `inpt_v`

`replacement_v` is a vector containing the expression that are going to substitute those provided by `pattern_v`

Examples

```
print(sub_mult(inpt_v = c("X and Y programming languages are great", "More X, more X!"),
               pattern_v = c("X", "Y", "Z"),
               replacement_v = c("C", "R", "GO")))

[1] "C and R programming languages are great"
[2] "More C, more X!"
```

| | |
|-----------------|------------------------|
| successive_diff | <i>successive_diff</i> |
|-----------------|------------------------|

Description

Allow to see the difference between the successive elements of an numeric vector

Usage

```
successive_diff(inpt_v)
```

Arguments

`inpt_v` is the input numeric vector

Examples

```
print(successive_diff(c(1:10)))

[1] 1 1 1 1 1

print(successive_diff(c(1:11, 13, 19)))

[1] 1 1 1 1 1 2 6
```

| | |
|-------|--------------|
| swipr | <i>swipr</i> |
|-------|--------------|

Description

Returns an ordered dataframes according to the elements order given. The input datafram has two columns, one with the ids which can be bonded to multiple elements in the other column.

Usage

```
swipr(inpt_datf, how_to = c(), id_w = 2, id_ids = 1)
```

Arguments

- inpt_datf is the input dataframe
- how_to is a vector containing the elements in the order wanted
- id_w is the column number or the column name of the elements
- id_ids is the column number or the column name of the ids

Examples

```
datf <- data.frame("col1"=c("Af", "Al", "Al", "Al", "Arg", "Arg", "Arg", "Arm", "Arm", "A  

                    "col2"=c("B", "B", "G", "S", "B", "S", "G", "B", "G", "B"))

print(swipr(inpt_datf=datf, how_to=c("G", "S", "B")))
```

| | col1 | col2 |
|----|------|------|
| 1 | Af | B |
| 2 | Al | G |
| 3 | Al | S |
| 4 | Al | B |
| 5 | Arg | G |
| 6 | Arg | S |
| 7 | Arg | B |
| 8 | Arm | G |
| 9 | Arm | B |
| 10 | Al | B |

| | |
|------------|-------------------|
| test_order | <i>test_order</i> |
|------------|-------------------|

Description

Allow to get if two vectors have their commun elements in the same order, see examples

Usage

```
test_order(inpt_v_from, inpt_v_test)
```


Arguments

`is` the vector we want to test if its commun element with `inpt_v_from` are in the same order

Examples

```
print(test_order(inpt_v_from = c(1:8), inpt_v_test = c(1, 4)))

[1] TRUE

print(test_order(inpt_v_from = c(1:8), inpt_v_test = c(1, 4, 2)))

[1] FALSE
```

| | |
|------------------------|------------------|
| <code>to_unique</code> | <i>to_unique</i> |
|------------------------|------------------|

Description

Allow to transform a vector containing elements that have more than 1 occurence to a vector with only unques elements.

Usage

```
to_unique(inpt_v, distinct_type = "suffix", distinct_val = "number", sep = "-")
```

Arguments

`inpt_v` is the input vectors

`distinct_type` takes two values: suffix or prefix

`distinct_val` takes two values: number (unique sequence of number to differenciate each value) or letter (unique sequence of letters to differenciate each value)

Examples

```
print(to_unique(inpt_v = c("a", "a", "e", "a", "i", "i"),
  distinct_type = "suffix",
  distinct_val = "number",
  sep = "-"))

[1] "a-1" "a-2" "e"   "a-3" "i-1" "i-2"

print(to_unique(inpt_v = c("a", "a", "e", "a", "i", "i"),
  distinct_type = "suffix",
  distinct_val = "letter",
  sep = "-"))

[1] "a-a" "a-b" "e"   "a-c" "i-a" "i-b"

print(to_unique(inpt_v = c("a", "a", "e", "a", "i", "i"),
  distinct_type = "prefix",
```

```
distinct_val = "number",
sep = "/"))

[1] "1/a" "2/a" "e"   "3/a" "1/i" "2/i"

print(to_unique(inpt_v = c("a", "a", "e", "a", "i", "i"),
distinct_type = "prefix",
distinct_val = "letter",
sep = "_"))

[1] "a_a" "b_a" "e"   "c_a" "a_i" "b_i"
```

| | |
|------------------------|------------------|
| <code>union_all</code> | <i>union_all</i> |
|------------------------|------------------|

Description

Allow to perform a union function to n vectors.

Usage

```
union_all(...)
```

Arguments

... are all the input vectors

Examples

```
print(union_all(c(1, 2), c(3, 4), c(1:8)))

[1] 1 2 3 4 5 6 7 8

print(union_all(c(1, 2), c(3, 4), c(7:8)))

[1] 1 2 3 4 7 8
```

| | |
|-------------------------|-------------------|
| <code>union_keep</code> | <i>union_keep</i> |
|-------------------------|-------------------|

Description

Performs a union operation keeping the number of elements of all input vectors, see examples

Usage

```
union_keep(...)
```

Arguments

... are all the input vectors

Examples

```
print(union_keep(c("a", "ee", "ee"), c("p", "p", "a", "i"), c("a", "a", "z")))

[1] "a" "ee" "ee" "p" "p" "i" "z"

print(union_keep(c("a", "ee", "ee"), c("p", "p", "a", "i")))

[1] "a" "ee" "ee" "p" "p" "i"
```

| | |
|-------------|--------------------|
| unique_datf | <i>unique_datf</i> |
|-------------|--------------------|

Description

Returns the input dataframe with the unique columns or rows.

Usage

```
unique_datf(inpt_datf, col = FALSE)
```

Arguments

inpt_datf is the input dataframe
col is a parameter that specifies if the dataframe returned should have unique columns or rows, defaults to F, so the dataframe returned by default has unique rows

Examples

```
datf1 <- data.frame(c(1, 2, 1, 3), c("a", "z", "a", "p"))

print(datf1)

  c.1..2..1..3. c..a....z....a....p.. c.1..2..1..3..1
1              1                      a              1
2              2                      z              2
3              1                      a              1
4              3                      p              3

print(unique_datf(inpt_datf=datf1))

#   c.1..2..1..3. c..a....z....a....p..
#1              1                      a
#2              2                      z
#4              3                      p

datf1 <- data.frame(c(1, 2, 1, 3), c("a", "z", "a", "p"), c(1, 2, 1, 3))

print(datf1)
```

```
      c.1..2..1..3. c..a....z....a....p..
1          1          a
2          2          z
3          1          a
4          3          p

print(unique_datf(inpt_datf=datf1, col=TRUE))

#  cur_v cur_v
#1     1     a
#2     2     z
#3     1     a
#4     3     p
```

unique_ltr_from_v *unique_ltr_from_v*

Description

Returns the unique characters contained in all the elements from an input vector "inpt_v"

Usage

```
unique_ltr_from_v(inpt_v, keep_v = c("?", "!", ":", "&", ",", ".", letters))
```

Arguments

- inpt_v is the input vector containing all the elements
- keep_v is the vector containing all the characters that the elements in inpt_v may contain

Examples

```
print(unique_ltr_from_v(inpt_v=c("bonjour", "lpoerc", "nonnour", "bonnour", "nonjour", "a
# [1] "b" "o" "n" "j" "u" "r" "l" "p" "e" "c" "a" "v" "i"
```

unique_pos *unique_pos*

Description

Allow to find the first index of the unique values from a vector.

Usage

```
unique_pos(vec)
```

Arguments

vec is the input vector

Examples

```
print(unique_pos(vec=c(3, 4, 3, 5, 6)))  
# [1] 1 2 4 5
```

| | |
|--------------|---------------------|
| unique_total | <i>unique_total</i> |
|--------------|---------------------|

Description

Returns a vector with the total amount of occurrences for each element in the input vector. The occurrences of each element follow the same order as the unique function does, see examples

Usage

```
unique_total(inpt_v = c())
```

Arguments

inpt_v is the input vector containing all the elements

Examples

```
print(unique_total(inpt_v = c(1:12, 1)))  
[1] 2 1 1 1 1 1 1 1 1 1 1 1  
print(unique_total(inpt_v = c(1:12, 1, 11, 11)))  
[1] 2 1 1 1 1 1 1 1 1 1 3 1  
vec <- c(1:12, 1, 11, 11)  
names(vec) <- c(1:15)  
print(unique_total(inpt_v = vec))  
  
1 2 3 4 5 6 7 8 9 10 11 12  
2 1 1 1 1 1 1 1 1 1 3 1
```

| | |
|------------|-------------------|
| until_stnl | <i>until_stnl</i> |
|------------|-------------------|

Description

Maxes a vector to a chosen length. ex: if i want my vector c(1, 2) to be 5 of length this function will return me: c(1, 2, 1, 2, 1)

Usage

```
until_stnl(vec1, goal)
```

Arguments

| | |
|------|------------------------|
| vec1 | is the input vector |
| goal | is the length to reach |

Examples

```
print(until_stnl(vec1=c(1, 3, 2), goal=56))

# [1] 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3
# [39] 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3 2 1 3
```

| | |
|--------------|---------------------|
| val_replacer | <i>val_replacer</i> |
|--------------|---------------------|

Description

Allow to replace value from dataframe to another one.

Usage

```
val_replacer(datf, val_replaced, val_replacor = TRUE)
```

Arguments

| | |
|--------------|---|
| datf | is the input dataframe |
| val_replaced | is a vector of the value(s) to be replaced |
| val_replacor | is the value that will replace val_replaced |

Examples

```
print(val_replacer(datf=data.frame(c(1, "oo4", TRUE, FALSE), c(TRUE, FALSE, TRUE, TRUE)),
  val_replaced=c(TRUE), val_replacor="NA"))

# c.1...oo4...T..F. c.T..F..T..T.
#1                1                NA
#2                oo4              FALSE
#3                NA                NA
#4                FALSE              NA
```

| | |
|-----------------|------------------------|
| vector_replacor | <i>vector_replacor</i> |
|-----------------|------------------------|

Description

Allow to replace certain values in a vector.

Usage

```
vector_replacor(inpt_v = c(), sus_val = c(), rpl_val = c(), grep_ = FALSE)
```

Arguments

| | |
|----------------------|--|
| <code>inpt_v</code> | is the input vector |
| <code>sus_val</code> | is a vector containing all the values that will be replaced |
| <code>rpl_val</code> | is a vector containing the value of the elements to be replaced (<code>sus_val</code>), so <code>sus_val</code> and <code>rpl_val</code> should be the same size |
| <code>grep_</code> | is if the elements in <code>sus_val</code> should be equal to the elements to replace in <code>inpt_v</code> or if they just should found in the elements |

Examples

```
print(vector_replacor(inpt_v=c(1:15), sus_val=c(3, 6, 8, 12),
  rpl_val=c("oui", "non", "e", "a")))

# [1] "1" "2" "oui" "4" "5" "non" "7" "e" "9" "10" "11" "a"
#[13] "13" "14" "15"

print(vector_replacor(inpt_v=c("non", "zez", "pp a ftf", "fdatfd", "assistance",
  "ert", "repas", "repos"),
  sus_val=c("pp", "as", "re"), rpl_val=c("oui", "non", "zz"), grep_=TRUE))

#[1] "non" "zez" "oui" "fdatfd" "non" "ert" "non" "zz"
```

| | |
|-------------|--------------------|
| vec_in_datf | <i>vec_in_datf</i> |
|-------------|--------------------|

Description

Allow to get if a vector is in a dataframe. Returns the row and column of the vector in the dataframe if the vector is contained in the dataframe.

Usage

```
vec_in_datf(
  inpt_datf,
  inpt_vec = c(),
  coeff = 0,
  stop_untl = 1,
  conventional = FALSE
)
```

Arguments

`inpt_datf` is the input dataframe
`inpt_vec` is the vector that may be in the input dataframe
`coeff` is the "slope coefficient" of `inpt_vec`
`stop_until` is the maximum number of the input vector the function returns, if in the dataframe
`conventional` is if a positive slope coefficient means that the vector goes upward or downward

Examples

```

datf1 <- data.frame(c(1:5), c(5:1), c("a", "z", "z", "z", "a"))

print(datf1)

#   c.1.5. c.5.1. c..a....z....z....z....a..
#1      1      5                                a
#2      2      4                                z
#3      3      3                                z
#4      4      2                                z
#5      5      1                                a

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(5, 4, "z"), coeff=1))

#NULL

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(5, 2, "z"), coeff=1))

#[1] 5 1

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(3, "z"), coeff=1))

#[1] 3 2

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(4, "z"), coeff=-1))

#[1] 2 2

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(2, 3, "z"), coeff=-1))

#[1] 2 1

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(5, 2, "z"), coeff=-1, conventional=TRUE))

#[1] 5 1

datf1[4, 2] <- 1

print(vec_in_datf(inpt_datf=datf1, inpt_vec=c(1, "z"), coeff=-1, conventional=TRUE, stop_
#[1] 4 2 5 2

```

| | |
|--------------|---------------------|
| vlookup_datf | <i>vlookup_datf</i> |
|--------------|---------------------|

Description

Allow to perform a vlookup on a dataframe

Usage

```
vlookup_datf(datf, v_id, col_id = 1, included_col_id = "yes")
```

Arguments

| | |
|-----------------|--|
| datf | is the input dataframe |
| v_id | is a vector containing the ids |
| col_id | is the column that contains the ids (default is equal to 1) |
| included_col_id | is if the result should return the col_id (default set to yes) |

Examples

```
datf1 <- data.frame(c("az1", "az3", "az4", "az2"), c(1:4), c(4:1))

print(vlookup_datf(datf=datf1, v_id=c("az1", "az2", "az3", "az4")))

#   c..az1....az3....az4....az2.. c.1.4. c.4.1.
#2                                az1      1      4
#4                                az2      4      1
#21                               az3      2      3
#3                                az4      3      2
```

| | |
|------------|-------------------|
| wider_datf | <i>wider_datf</i> |
|------------|-------------------|

Description

Takes a dataframe as an input and the column to split according to a separator.

Usage

```
wider_datf(inpt_datf, col_to_splt = c(), sep_ = "-")
```

Arguments

| | |
|-------------|--|
| inpt_datf | is the input dataframe |
| col_to_splt | is a vector containing the number or the colnames of the columns to split according to a separator |
| sep_ | is the separator of the elements to split to new columns in the input dataframe |

Examples

```
datf1 <- data.frame(c(1:5), c("o-y", "hj-yy", "er-y", "k-ll", "ooo-mm"), c(5:1))

datf2 <- data.frame("col1"=c(1:5), "col2"=c("o-y", "hj-yy", "er-y", "k-ll", "ooo-mm"))

print(wider_datf(inpt_datf=datf1, col_to_splt=c(2), sep="-"))

#      pre_datf X.o.  X.y.
#o-y    1      "o"   "y"   5
#hj-yy  2      "hj"  "yy"  4
#er-y   3      "er"  "y"   3
#k-ll   4      "k"   "ll"  2
#ooo-mm 5      "ooo" "mm"  1

print(wider_datf(inpt_datf=datf2, col_to_splt=c("col2"), sep="-"))

#      pre_datf X.o.  X.y.
#o-y    1      "o"   "y"
#hj-yy  2      "hj"  "yy"
#er-y   3      "er"  "y"
#k-ll   4      "k"   "ll"
#ooo-mm 5      "ooo" "mm"
```

wide_to_narrow_idx *wide_to_narrow_idx*

Description

Allow to convert the indices of vector ('from_v_ids') which are related to each characters of a vector, to fit the newly established maximum character of the vector, see examples.

Usage

```
wide_to_narrow_idx(from_v_val = c(), from_v_ids = c(), val = 1)
```

Arguments

- from_v_val is the input vector of elements, or just the total number of characters of the elementsq in the vector
- from_v_ids is the input vector of indices
- val is the value - 1 from which the number of character of an element is too high, so the indices in 'from_v_ids' will be modified

Examples

```
print(wide_to_narrow_idx(from_v_val = c("oui", "no", "oui"), from_v_ids = c(4, 6, 9), val = 1))

[1] 2 4 5

print(wide_to_narrow_idx(from_v_val = c("oui", "no", "oui"), from_v_ids = c(4, 6, 9), val = 2))

[1] 2 2 3
```

```
print(wide_to_narrow_idx(from_v_val = c("oui", "no", "oui"), from_v_ids = c(4, 6, 9), val
[1] 4 6 9
```

| | |
|------------------|-------------------------|
| write_edm_parser | <i>write_edm_parser</i> |
|------------------|-------------------------|

Description

Allow to write data to edm parsed dataset, see examples

Usage

```
write_edm_parser(inpt, to_write_v, write_data)
```

Arguments

`inpt` is the input dataset
`to_write_v` is the vector containing the path to write the data, see examples

Examples

```
print(write_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))",
to_write_v = c("ok", "ee"), write_data = c("ii", "olm")))

[1] "(ok(ee:56)(ii:olm))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))"

print(write_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))",
to_write_v = c("ok", "oui"), write_data = c("ii", "olm")))

[1] "(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(ii:olm)(oui(bb(rr2:1)))(ee1:4))"

print(write_edm_parser("(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ee1:4))",
to_write_v = c("ok", "oui", "oui"), write_data = c("ii", "olm")))

[1] "(ok(ee:56))(ok(oui(rr((rr2:6)(rr:5))))(oui(bb(rr2:1)))(ii:olm)(ee1:4))"

print(write_edm_parser("",
to_write_v = c(), write_data = c("ii", "olm")))

[1] "(ii:olm)"
```

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