# Package 'edm1'

## June 12, 2024

<b>Version</b> 2.0.0.0
<b>Description</b> Provides complex sorting algorythms. Provides date manipulation algorythms. In addi-
tion to providing handy functions to discretize variables, an SQL joins alternatives, a set of func-
tion to work with geographical coordinates, and other functions to work with text mining.
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Title Simplify Complex Data Manipulation

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## 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/".

4 all\_stat

#### 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

```
datf <- data.frame("mod"=c("first", "seco", "seco", "first", "first", "third", "first"),</pre>
               "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
                             64
                                16 16.5 6.97614984548545 48.6666666666667
                 var1
#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
               var2-d 1
#11
#12
                       1
               var2-z
#13
                             87 43.5 43.5 0.707106781186548
                                                                          0.5
                 var3
#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
```

any\_join\_datf 5

#15 #16

```
any_join_datf
```

any\_join\_datf

## 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**

<ul><li>inpt_datf_l is a list containing all the dataframe</li><li>join_type is the joint type. Defaults to inner but can be changed to a vector containing at</li></ul>
join_type is the joint type. Defaults to inner but can be changed to a vector containing a
the dataframes you want to take their ids to don external joints.
join_spe can be equal to a vector to do an external joints on all the dataframes. In the case, join_type should not be equal to "inner"
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 inpt_datf_ It means that if my id is in the third column of the second dataframe and the fir dataframe have 5 columns, the column number of the ids is $5 + 3 = 8$
excl_col 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 mann indicated for "id_v". Defaults to c()
rtn_col 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 c()
d_val is the default val when here is no match

```
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),</pre>
```

6 any\_join\_datf

```
"second_ids"=c(13, 12, 8, 34, 22, 12))
datf3 <- data.frame("val"=c(1, 9, 2, 4), "ids"=c("a", "a", "z", "a"),</pre>
"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
                         7
                             z FALSE
#3 z 2 z non
                      12
                                           12
                                              2 z non
                                                               12
  а
      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
                e 1 e oui
#1
                      11 3 a TRUE
   a 1 a oui
                                            13 1 a oui
#2
#3 z 2 z non
                      12 7 z FALSE
                                            12 2 z non
                      8 4 a FALSE
#4 a 4 a oui
                                            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> 1 a oui
            z FALSE
#2 z12
        7
                          12 2 z non
                                              12
                                                    2
                                                        z non
            z FALSE
#3
        2
                          8 <NA> <NA> <NA>
                                             <NA> <NA> <NA> <NA>
   z8
                                             a FALSE
                         34 <NA> <NA> <NA>
#4
  a34
        4
                         22 <NA> <NA> <NA>
        1 a TRUE
2 a TRUE
#5 a22
                         12 <NA> <NA> <NA>
#6 a12
                       <NA> <NA> <NA> <NA>
#7 a13 <NA> <NA> <NA>
                                             <NA> <NA> <NA> <NA>
#8 all <NA> <NA> <NA>
                       <NA> 1 a oui
                                              11 9 a oui
#9 z12 <NA> <NA> <NA>
                       <NA> <NA> <NA> <NA>
                                             <NA> <NA> <NA> <NA>
                                             8 4 a oui
#10 a8 <NA> <NA> <NA>
                       <NA> 4 a oui
# second ids
#1
         13
#2
         12
#3
        <NA>
#4
        <NA>
#5
        <NA>
#6
        <NA>
```

appndr 7

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

appndr appndr

#### **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"

```
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"
```

8 better\_split

better\_match

better\_match

## Description

Allow to get the nth element matched in a vector

## Usage

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

#### **Arguments**

inpt\_v is the input vector
ptrn is the pattern to be matched
untl 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, untl=1))
#[1] 3
print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=3, untl=5))
#[1] 3 13 16
print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=c(3, 4), untl=5))
[1] 3 13 16 4 14
print(better_match(inpt_v=c(1:12, 3, 4, 33, 3), ptrn=c(3, 4), untl=c(1, 5)))
[1] 3 4 14
```

better\_split

better\_split

## Description

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

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

better\_sub

#### **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\_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, untl\_v = c())
```

## Arguments

inpt\_v is a vector containing all the elements that contains expressions to be substituted
pattern is the expression that will be substituted
replacement is the expression that will substituate pattern
untl\_v is a vector containing, for each element of inpt\_v, the number of pattern that will be substituted

10 better\_sub\_mult

better\_sub\_mult

better\_sub\_mult

#### **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(),
  untl_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 substituate those provided
 by pattern\_v

untl\_v is a vector containing, for each element of inpt\_v, the number of pattern that will
be substituted

can\_be\_num 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

Х

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.

12 closer\_ptrn

#### Usage

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

## **Arguments**

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

```
print(closer_ptrn(inpt_v=c("bonjour", "lpoerc", "nonnour", "bonnour", "nonjour", "aurevoir"
# [[1]]
#[1] "bonjour"
# 
#[[2]]
#[1] "lpoerc" "nonnour" "bonnour" "aurevoir"
# 
#[[3]]
#[1] 1 1 2 7 8
# 
#[[4]]
#[1] "lpoerc"
# 
#[[5]]
#[1] "bonjour" "nonnour" "bonnour" "aurevoir"
# 
#[[6]]
#[1] 7 7 7 7 7
# 
# [[7]]
#[1] "nonnour"
```

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```
#[[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", "aurevoi
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
```

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```
#[[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

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

clusterizer\_v 15

#### **Examples**

```
clusterizer_v clusterizer_v
```

#### **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

```
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
```

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```
#[[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"
#
```

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```
#[[1]][[5]]
#[1] "g" "h" "i" "j"
#[[1]][[6]]
#[1] "k"
#[[1]][[7]]
#[1] "1"
#[[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.

18 converter\_date

#### Usage

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

#### **Arguments**

inpt\_datf is the dataframe where vectors will be inserted
target\_col is a list containing all the vectors to be inserted
target\_pos is a list containing the vectors made of the columns names or numbers where the associated vectors from target\_col will be inserted after

#### **Examples**

```
datf1 <- data.frame("frst_col"=c(1:5), "scd_col"=c(5:1))</pre>
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
#2
         2
              oui
                       4
                              oui
                                        Z
#3
        3
                      3
              oui
                              oui
#4
        4
                       2
              non
                              non
#5
         5
              non
                      1
                               non
print(colins_datf(inpt_datf=datf1, target_col=list(c("oui", "oui", "oui", "non", "non"),
            c("u", "z", "z", "z", "u")),
              {\tt target\_pos=list(c(1, 2), c("frst\_col"))))}
# frst_col cur_col scd_col cur_col cur_col
#1
        1 oui 5 u
                                    oui
#2
         2
                       4
              oui
                               Z
                                    oui
                              Z
#3
         3
                       3
              oui
                                    oui
              non
#4
        4
                       2
                              Z
                                    non
                      1 u
#5
        5
                                    non
```

#### **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.

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

converter\_format 19

#### **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

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

20 cost\_and\_taxes

#### **Examples**

cost\_and\_taxes

cost\_and\_taxes

#### **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 = 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

cutr\_v 21

#### **Examples**

```
print(cost_and_taxes(pu=45, prix_ttc=2111, qte=23))
# [1] 23.000000 45.000000 1.039614 2111.000000 1076.000000
# [7] 45.000000 NA NA NA NA NA
```

```
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, untl = "min")
```

## Arguments

```
inpt_v is the input vector
unt1 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"</pre>
```

```
cut_v v_to_datf
```

#### **Description**

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

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

22 data\_gen

#### **Arguments**

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

#### **Examples**

data\_gen

data\_gen

#### Description

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

## Usage

#### Arguments

```
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
```

data\_gen 23

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 outputed 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 meas that non 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**

```
# X1 X2
           ХЗ
#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>
            а
#17
   1 <NA> abcd
#18 4 <NA>
#19 2 <NA> abcd
#20 3 <NA>
           ab
#21 3 <NA> abcd
#22 2 <NA>
           а
#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
```

print(data\_gen())

24 data\_meshup

```
#30 5 <NA> abcd
#31
   2 <NA>
#32 2 <NA>
            abc
#33 1 <NA>
            ab
#34
   5 <NA>
             а
#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>
#43 2 <NA>
#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>
print(data_gen(strt_l=c(0, 0, 0), nb_r=c(5, 5, 5)))
  X1
       X2
            Х3
#1
  2
        a abc
   3 abcde
#2
           ab
#3 4 abcde
#4 1 3 abc
#5 3
       a abcd
```

data\_meshup

data\_meshup

## Description

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

#### Usage

```
data_meshup(
  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: c("", c("d", "-", "e", "-", "f"), "", c("a", "a1", "-", "b", "-", "c", "c1"), "\_")

date\_addr 25

```
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, al 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**

date\_addr

#7 f c1

date\_addr

#### **Description**

Allow to add or substract 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 substracted
date2	is the date that will be added or will substract date1
add	equals to FALSE if you want date 1 - date 2 and TRUE if you want date 1 + date 2 $$
frmt1	is the format of date1 (snhdmy) (second, minute, hour, day, monthn year)

```
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)

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

dcr\_untl 27

#### **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"
```

dcr\_untl

dcr\_untl

## 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
```

```
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
```

28 depth\_pairs\_findr

dcr\_val dcr\_val

#### **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
```

```
{\tt depth\_pairs\_findr} \quad \textit{depth\_pairs\_findr}
```

#### **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

diff\_datf 29

#### **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

diff\_datf

#### **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", "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</pre>
```

```
equalizer_v
```

equalizer\_v

## 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.

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

30 extrt\_only\_v

#### **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?????????"
```

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

```
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 31

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

 $\verb|ptrn_fill| is the pattern used to detect where the function has to fill the vector by the last$ 

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" "c"
```

fixer\_nest\_v fixer\_nest\_v

## 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 pattern elements.

## Usage

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

## Arguments

cur\_v is the input vector

 $\verb|pttrn_v| is the vector containing all the patterns that may be contained in cur_v$ 

wrk\_v is a vector containing all the indexes of cur\_v taken in count in the function

32 fold\_rec2

#### **Examples**

fold\_rec

fold\_rec

#### **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 algorythm (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

fold\_rec2

#### **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

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

format\_date 33

#### **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

#### **Description**

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

#### Usage

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

#### Arguments

 ${\tt f\_dialect} \qquad \text{are the months from the language of which the month come} \\$ 

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 geo\_min

## 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 firts

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

34 globe

#### **Examples**

```
in_{-} \leftarrow 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_))
                   X2
          Х1
   245.266
#1
                   NA
#2 24200.143
                   NA
#3
          NA 127.7004
in_{-} \leftarrow 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.

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

grep\_all 35

#### **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

grep\_all

grep\_all

#### **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

36 groupr\_datf

grep\_all2

grep\_all2

#### **Description**

Performs the grep\_all function with another algorythm, 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**

groupr\_datf

groupr\_datf

#### **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 dataframeaccording to the cell value. This function is based on see\_datf and nestr\_datf2 functions.

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

gsub\_mult 37

#### **Arguments**

#### **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 substituate those provided by pattern\_v

38 how\_normal

#### **Examples**

how\_normal

how\_normal

## **Description**

Allow to get how precisely 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

```
sample\_val \leftarrow round(rnorm(n = 12000, mean = 6, sd = 1.25), 1)
sample_freq <- unique_total(sample_val)</pre>
datf_test <- data.frame(unique(sample_val), sample_freq)</pre>
print(datf_test)
   unique.sample_val. sample_freq
1
                  5.4
                       344
2
                   4.7
                               224
3
                   7.5
                               183
4
                   6.7
                               329
5
                   4.9
                               277
6
                   6.3
                               371
7
                   6.2
                               401
                  6.4
8
                               339
9
                  5.2
                               329
10
                  8.3
                                78
11
                  7.4
                               197
12
                  7.9
                               121
13
                  5.8
                               392
14
                  6.1
                               413
```

how\_normal 39

15 16	8.0	88 369
17	6.0 5.9	367
18	7.3	215
19	7.7	149
20	7.2	246
21	5.3	315
22	7.0	270
23	8.5	50
24 25	4.5 5.0	188 277
26	7.6	171
27	6.9	286
28	4.4	173
29	7.1	246
30	3.7	64
31	5.7	342
32	4.8	251
33 34	7.8 8.1	124 96
35	5.5	365
36	4.3	154
37	4.1	112
38	6.5	379
39	8.7	32
40	5.1	297
41	6.8	301
42 43	4.0 5.6	108 352
44	3.4	51
45	3.6	58
46	8.8	33
47	6.6	358
48	3.9	100
49 50	4.6	192
51	3.2 3.3	38 48
52	4.2	149
53	9.0	17
54	2.4	9
55	3.5	50
56	9.3	13
57	9.1	18
58 59	8.9 8.4	31 46
60	8.6	45
61	2.8	20
62	8.2	87
63	9.2	14
64	2.7	9
65 66	2.9 3.8	18
67	9.4	84 9
68	3.1	25
69	2.2	4
70	10.3	1
71	2.6	9

id\_keepr

```
72
                               5
                 1.9
73
                              19
                 3.0
74
                 2.1
                               5
75
                 2.5
                              8
76
                 9.6
                               7
77
                 9.5
                               6
78
                 9.7
79
                10.9
80
                 2.3
                               7
81
                 9.9
                               3
82
                 9.8
                               2
                               2
83
                 2.0
                1.8
                              1
84
85
                10.4
                              1
                              3
86
                10.1
87
                10.2
                              1
88
                10.0
                              2
89
                 1.6
                              1
90
                 1.2
print(how_normal(inpt_datf = datf_test,
                normalised = FALSE,
                mean = 6,
                sd = 1))
[1] 2.540311
print(how_normal(inpt_datf = datf_test,
                normalised = FALSE,
                mean = 5,
                sd = 1))
[1] 2.747056
```

id\_keepr

id\_keepr\_datf

# Description

Allow to get the original indexes after multiple equality comparaison 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" $$
el_v	is a vector containing the elements that may be contained in their respective column described in "col v"

incr\_fillr 41

rstr\_l

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 rstr\_l will be the same as the last one to fill make rstr\_l equal in term of length to col\_v and el\_v

## **Examples**

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**

inpt_v	is the asending double only composed vector
wrk_v	is the other vector (size equal to inpt_v), defaults to NA
default_val	is the default value put when the difference between two following elements of inpt_v is greater than step, defaults to NA
step	is the allowed difference between two elements of inpt v

inner\_all

#### **Examples**

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 etckeep\_val is if you want to keep the id columnid\_v is the common id of all the dataframes etc

```
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 oui oui2</pre>
```

insert\_datf 43

```
2 2 oui oui2
3 3 oui oui2
```

	insert_datf	edm1 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
```

```
datf1 \leftarrow data.frame(c(1, 4), c(5, 3))
datf2 \leftarrow 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
# 2
                3
                      2
                                           4
# 3
                5
                      3
                                           5
                      1
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
# 2
                      2
                3
                                           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
# 2
                3
                      1
                                           5
# 3
               5
                      4
                                           3
# 4
                6
                      4
                                       ereer
```

44 intersect\_mod

## **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

intersect\_mod

# Description

Returns the mods that have elements in common

is the input dataframe

#### Usage

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

## **Arguments**

datf

inter\_col is the column name or the column number of the values that may be commun betwee 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

inter\_max 45

```
datf <- data.frame("col1"=c("oui", "oui", "oui", "oui", "oui", "oui",</pre>
                 "non", "non", "non", "non", "ee", "ee", "ee"), "col2"=c(1:6, 2:5, 1:
print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=2))
  coll 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
  oui
        3
3
4
  oui
        4
5
  oui
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))
 col1 col2
1 oui 1
2 oui
3
  oui
4
  oui
5
  oui
        5
  oui
print(intersect_mod(datf=datf, inter_col=2, mod_col=1, n_min=3))
  coll col2
8 non
9
  non
10 non
        5
3 oui
        3
4
        4
  oui
5
        5
  oui
```

46 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)). 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
#
#[[2]]
#[1] 1 0 4
```

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 algorythmn searches the common step of all the sub-lists is also given by the user as a parameter, see how\_to paramaters.

isnt\_divisible 47

#### Usage

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

## **Arguments**

inpt_l	is the input list containing all the intervals
min_	is a value you are sure is superior to the maximum step value in all the intervals
sensi	is the decimal accuracy of how the difference between each value n to $n+1$ in an interval is calculated
sensi2	is the decimal accuracy of how the value with the common step is calculated in all the intervals
how_to_op	is a vector containing the operations to perform to the pre-common step value, defaults to only "divide". The operations can be "divide", "substract", "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
```

## **Description**

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

48 is\_divisible

#### 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
```

## **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
```

```
print(is_divisible(inpt_v=c(1:111), divisible_v=c(2, 4, 5)))
#[1] 20 40 60 80 100
```

join\_n\_lvl 49

```
join_n_lvl join_n_lvl
```

#### **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

```
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 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**

0 응

50%

one |= |

two |==| 100%

```
datf3 <- data.frame("vil"=c("one", "one", "one", "two", "two", "two"),</pre>
                      "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 \leftarrow 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("v
                 join_type=c("inner", "left")))
[1] "pair: charac vil"
      0%
1
|= | 50%
2
|==| 100%
[1] "pair: vil2 idl2"
```

left\_all

```
main_id.x vil.x charac.x rev.x vil2.x idl2.x main_id.y vil.y charac.y rev.y
1 1oneone1 one 1 1250
2 2oneone2 one 2 1430
                                 one 1 <NA> <NA> one 2 <NA> <NA>
                                                                   NA
                                                                          NA
                                  one 3 2oneone3 one two 4 <NA> <NA>
3 2oneone3 one
                       2 970
                                                                   2 1430
                       1 1630
4 1twotwo4 two
                                                                  NA
                                                                       NA
 vil2.y idl2.y
1
   <NA>
           NA
2
   <NA>
            NA
3
            3
    one
   <NA>
            NA
```

leap\_yr

bsx\_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

left\_all

## **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

 $\begin{array}{ll} \texttt{keep\_val} & \text{is if you want to keep the id column} \\ \texttt{id\_v} & \text{is the common id of all the dataframes etc} \end{array}$ 

letter\_to\_nb 51

#### **Examples**

```
datf1 \leftarrow data.frame(
        "id1"=c(1:5),
        "var1"=c("oui", "oui", "oui", "non", "non")
)
datf2 <- data.frame(</pre>
        "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
        oui oui2 oui2
  1
                              oui2
        oui oui2
                      oui2
                               oui2
   3
       oui oui2 oui2
                               oui2
4 4 non <NA> <NA> <NA> <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
        oui oui2 oui2
   2
2
3
  3 oui oui2 oui2
4 4 non <NA> <NA>
5 5 non <NA> <NA>
```

# **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)
```

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

52 lst\_flatnr

list\_files

list\_files

# Description

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

# Usage

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

# **Arguments**

patternc is a vector containing all the exensions you want

pathc is the path, can be a vector of multiple path because list.files() supports it.

lst\_flatnr

lst\_flatnr

# Description

Flatten a list to a vector

# Usage

```
lst_flatnr(inpt_l)
```

# **Arguments**

```
inpt_l is the input list
```

```
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 53

match\_by match\_by

#### **Description**

Allow to match elements by ids, see examples.

#### Usage

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

#### **Arguments**

#### **Examples**

multitud

multitud

# 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_ = "")
```

54 nb2\_follow

#### **Arguments**

```
is the listsep_ 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

nb2\_follow

## **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

```
print(nb2_follow(inpt_v = c(1:12), inpt_idx = 4, inpt_follow_v = c(5)))
[1] 1 5
print(nb2_follow(inpt_v = c(1, "non", "oui", "oui", "oui", "nop", 5), inpt_idx = 2, inpt_
[1] "3" "oui"
```

nb\_follow 55

nb\_follow nb\_follow

## **Description**

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

nb\_to\_letter

nb\_to\_letter

# Description

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

## Usage

```
nb_to_letter(x)
```

## Arguments

Х

is the number of the column

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

56 nestr\_datf1

nestr\_datf1

nestr\_datf1

#### **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**

```
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
            2
#2
                       5
```

nestr\_datf2 57

#3 3 2

# Description

Allow to write a special value (1a) in the cells of a dataframe (1b) that correspond (row and column) to whose 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**

```
#1 yes no
#2 no no
#3 yes yes
```

## **Description**

Nest two vectors according to the following parameters.

# Usage

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

58 new\_ordered

## **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**

# 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

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

non\_unique 59

non\_unique non\_unique

#### **Description**

Returns the element that are not unique from the input vector

#### Usage

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

#### **Arguments**

 $\verb"inpt_v" is the input vector containing the elements$ 

occu

is a parameter that specifies the occurence 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 synthax is the following "comparaison\_type-actual\_value-". The comparaison type may be "==" or ">". Occu can also be a vector containing all the occurence that must have the elements to be returned.

#### **Examples**

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

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

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

print (non_unique (inpt_v=c("oui", "oui", "non", "non", "peut", "peut1", "non"), occu=c(1, "fell "non" "peut" "peut1")
```

occu occu

## **Description**

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

#### Usage

```
occu(inpt_v)
```

60 pairs\_findr

## **Arguments**

```
inpt_v the input dataframe
```

#### **Examples**

# 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
```

```
pairs_findr pairs_findr
```

## **Description**

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

# Usage

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

pairs\_findr\_merger 61

#### **Arguments**

```
inpt is the input character
ptrn1 is the first pattern ecountered 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
```

```
pairs_findr_merger pairs_findr_merger
```

## **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

is the first ouput from pairs findr function 1st2 is the second ouput from pairs findr function

62 pairs\_findr\_merger

```
[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(1st1 = 1ist(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
[1] 3 21 22 23 27 32
```

pairs\_insertr 63

#### **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 conjuntion 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_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 algorythms used. The first algorythm 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 algorythm will put parenthesis at the condition that are located after other conditions that are surrounded by a pair. The third algorythm 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

```
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)))
```

64 pairs\_insertr2

```
[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 conjuntion 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**

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 algorythms used. The first algorythm 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 algorythm will put parenthesis at the condition that are located after other conditions that are surrounded by a pair. The third algorythm 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.

paste\_datf 65

```
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

method 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**

## **Description**

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

## Usage

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

66 pattern\_generator

## **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"
```

```
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

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

pattern\_gettr 67

```
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 containded in the vector that is beeing 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

word_	is the vector containing the patterns
vct	is the vector being searched for patterns
occ	a vector containing the occurence of the pattern in word_ to be matched in the vector being searched, if the occurence is 2 for the nth pattern in word_ and only one occurence is found in vct so no pattern will be matched, put "forever" to no longer depend on the occurence for the associated pattern
strict	a vector containing the "strict" condition for each nth vector in word_ ("strict" is the string to activate this option)
btwn	is a vector containing the condition ("yes" to activate this option) meaning that if "yes", all elements between two matched patern in vct will be returned , so the patterns you enter in word_ have to be in the order you think it will appear in vct
all_in_word	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
notatall	is a string that you are sure is not present in vct

68 pattern\_tuning

```
#[[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(
  pattrn,
  spe_nb,
  spe_l,
  exclude_type,
  hmn = 1,
  rg = c(1, nchar(pattrn))
)
```

## **Arguments**

```
pattrn 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
```

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

power\_to\_char 69

#### **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" "000000.18"
```

## **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
```

```
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")
```

70 ptrn\_twkr

|--|--|--|

## **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 switched 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

rearangr\_v 71

#### Usage

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

## Arguments

is the input vector inpt\_l 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". is the separator of the pattern, defaults to "-" sep is the default val that will be placed between the separator, defaults to "00" default val defaults to TRUE. If set to FALSE, it will remove the separator for the patterns add\_sep that are included in the interval between the depth amount of separator and the actual number of separator of the element. is if the default\_val will be added at the end or at the beginning of each element end 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"</pre>
```

rearangr\_v

rearangr\_v

# Description

Reanranges 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 rearanges in descending or asending order according to inpt\_v

72 regex\_spe\_detect

#### 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 descendingly

#### **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 regex_spe_detect
```

## **Description**

Takes a character as input and returns its regex-friendly character for R.

# Usage

```
regex_spe_detect(inpt)
```

## **Arguments**

inpt the input character

```
print(regex_spe_detect("o"))

[1] "o"

print(regex_spe_detect("(")))

[1] "\\(")

print(regex_spe_detect("tr(o)m")))

[1] "tr\\(o\\)m"

print(regex_spe_detect(inpt="fggfg[fggf]fgfg(vg?fgfgf.gf)"))

[1] "fggfg\\[fggf\\]fgfg\\(vg\\?fgfgf\\.gf\\)"
```

regroupr 73

regroupr regroupr

#### **Description**

Allow to sort data like "c(X1/Y1/Z1, X2/Y1/Z2, ...)" to what you want. For example it can be to "c(X1/Y1/21, X1/Y1/Z2, ...)"

#### Usage

```
regroupr(
  inpt_v,
  sep_ = "-",
  order = c(1:length(unlist(strsplit(x = inpt_v[1], split = sep_)))),
  l_order = NA
)
```

## **Arguments**

is the input vector containing all the data you want to sort in a specific way. All the sub-elements should be separated by a unique separator such as "-" or "/" sep\_ is the unique separator separating the sub-elements in each elements of inpt\_v order is a vector describing the way the elements should be sorted. For example if you want this dataset "c(X1/Y1/Z1, X2/Y1/Z2, ...)" to be sorted by the last element you should have order=c(3:1), for example, and it should returns something like this c(X1/Y1/Z1, X2/Y1/Z1, X1/Y2/Z1, ...) assuming you have only two values for X.

1\_order is a list containing the vectors of values you want to order first for each sub-elements

```
vec <- multitud(l=list(c("a", "b"), c("1", "2"), c("A", "Z", "E"), c("Q", "F")), sep_="/"</pre>
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/1/4/4"
                                                       "a/1/5/5"
                                                                   "a/1/6/6"
                              "a/1/3/3"
# [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_="/"))
```

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```
# [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"
                                          "a/2/10/10" "a/2/11/11" "a/2/12/12"
# [7] "a/2/7/7"
                  "a/2/8/8"
                              "a/2/9/9"
#[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/O"
                 "2/2/A/Q"
                             "3/3/A/0"
                                         "4/4/A/Q"
                                                      "5/5/Z/O"
                                                                  "6/6/Z/O"
                            "9/9/E/Q"
                                        "10/10/E/Q" "11/11/E/Q" "12/12/E/Q"
# [7] "7/7/Z/Q"
                 "8/8/Z/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"
```

r\_print

r\_print

## **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 \#[1] and 15 and 16 and 17 and 18 and 19 and 20 and 21 and 22 and 23 and 24 and 25 and \#[1] 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

```
save_untl(inpt_l = list(), val_to_stop_v = c())
```

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## **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 2
#
#[[3]]
#[1] 1 1
```

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

```
see_datf(
  datf,
  condition_l,
  val_l,
  conjunction_l = c(),
  rt_val = TRUE,
  f_val = FALSE
)
```

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#### **Arguments**

datf is the input dataframe is the vector of the possible conditions ("==", ">", "<", "!=", "%%", "reg", condition\_l "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\_1 is equal to 3, there will be 2 conjunctions. If the length of conjunction\_l is inferior to the length of condition\_1 minus 1, conjunction\_1 will match its goal length value with its last argument as the last arguments. For example, c("&", "I", "&") with a goal length value of  $5 \rightarrow c("\&", "|", "\&", "\&", "\&")$ is a special value cell returned when the conditions are respected rt\_val 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.

```
datf1 <- data.frame(c(1, 2, 4), c("a", "a", "zu"))</pre>
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))))
          X2
     X1
#1 TRUE TRUE
#2 TRUE TRUE
#3 TRUE TRUE
print(see_datf(datf=datf1, condition_l=c("not_reg"), val_l=list("[a-z]")))
```

see\_diff

```
# 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
```

```
see_diff_all
```

 $see\_diff\_all$ 

## Description

Allow to perform the opposite of intersect function to n vectors.

# Usage

```
see_diff_all(...)
```

# Arguments

... are all the input vectors

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#### **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</pre>
```

see\_file

 $see\_file$ 

# Description

Allow to get the filename or its extension

## Usage

```
see_file(string_, index_ext = 1, ext = TRUE)
```

# Arguments

is the input string
index\_ext is the occurence of the dot that separates the filename and its extension
ext is a boolean that if set to TRUE, will return the file extension and if set to FALSE, will return filename

```
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 79

# 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)

```
see_inside(
  pattern_,
  path_ = ".",
  sep_ = c(","),
  unique_sep = "#####",
  rec = FALSE
)
```

80 see\_mode

#### **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\_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

```
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
```

sort\_date 81

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**

inpt\_v is the input vector containing all the dates

frmt 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)

sep\_ is the separator used for the dates

ascending is the used to sort the dates

give takes only two values "index" or "value", if give == "index", the function will output the index of sorted dates from inpt\_v, if give == "value", the function will output the value, it means directly the sorted dates in inpt\_v, see examples

82 sub\_mult

#### **Description**

Allow to remove pattern within elements from a vector precisely according to their occurence.

## Usage

```
str_remove_untl(
  inpt_v,
  ptrn_rm_v = c(),
  untl = list(c(1)),
  nvr_following_ptrn = "NA"
)
```

#### **Arguments**

## **Examples**

```
vec <- c("45/56-/98mm", "45/56-/98mm", "45/56-/98-mm//")
print(str_remove_untl(inpt_v=vec, ptrn_rm_v=c("-", "/"), untl=list(c("max"), c(1))))
#[1] "4556/98mm" "4556/98mm" "4556/98mm//"
print(str_remove_untl(inpt_v=vec, ptrn_rm_v=c("-", "/"), untl=list(c("max"), c(1:2))))
#[1] "455698mm" "455698mm" "455698mm//"
print(str_remove_untl(inpt_v=vec[1], ptrn_rm_v=c("-", "/"), untl=c("max")))
#[1] "455698mm" "455698mm" "455698mm"</pre>
```

```
sub_mult sub_mult
```

## **Description**

Performs a sub operation with n patterns and replacements.

successive\_diff 83

#### 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 substituate those provided by pattern\_v

#### **Examples**

```
successive_diff successive_diff
```

# **Description**

Allow to see the difference beteen the suxxessive elements of an numeric vector

## Usage

```
successive_diff(inpt_v)
```

## **Arguments**

inpt\_v is the input numeric vector

```
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
```

84 swipr

## **Description**

Returns an ordered dataframes according to the elements order given. The input datafram has two columns, one with the ids whoch 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
    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
```

```
datf <- data.frame("col1"=c("Af", "Al", "Al", "Al", "Arg", "Arg", "Arg", "Arm"),
        "col2"=c("B", "B", "G", "S", "B", "S", "G", "B", "G"))
print(swipr(inpt_datf=datf, how_to=c("G", "S", "B")))
  col1 col2
#1
    Αf
          В
#2
    Al
           G
#3
    Al
           S
#4
    Al
          В
#5 Arg
          G
#6 Arg
          S
#7 Arg
          В
#8 Arm
           G
#9 Arm
datf <- data.frame("col1"=c("Af", "Arg", "Al", "Al", "Arg", "Arg", "Arg", "Arm"),</pre>
        "col2"=c("B", "B", "G", "S", "B", "S", "G", "B", "G"))
print(swipr(inpt_datf=datf, how_to=c("G", "S", "B"), id_w="col2", id_ids="col1"))
    coll col2
#1
    Αf
          В
#2 Arg
           G
#3
    Al
           G
#4
    Al
           S
#5 Arg
           S
#6 Arg
           В
#7 Arg
           В
#8 Arm
```

test\_order 85

```
#9 Arm B
```

test\_order

same\_order

# 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
```

union\_all

 $union\_all$ 

# Description

Allow to perform a union function to n vectors.

# Usage

```
union_all(...)
```

# Arguments

... are all the input vectors

86 unique\_datf

#### **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
```

unique\_datf

unique\_datf

## **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

```
datf1 \leftarrow data.frame(c(1, 2, 1, 3), c("a", "z", "a", "p"))
print(unique_datf(inpt_datf=datf1))
    c.1..2..1..3. c..a...z...a...p..
#1
               1
#2
                2
#4
                3
                                       р
datf1 <- data.frame(c(1, 2, 1, 3), c("a", "z", "a", "p"), c(1, 2, 1, 3))</pre>
print(unique_datf(inpt_datf=datf1, col=TRUE))
  cur_v cur_v
#1
       1
#2
       2
#3
       1
#4
       3
             р
```

unique\_ltr\_from\_v 87

```
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

```
print(unique_pos(vec=c(3, 4, 3, 5, 6)))
#[1] 1 2 4 5
```

88 until\_stnl

unique\_total

unique\_total

## **Description**

Returns a vector with the total amount of occurences for each element in the input vector. The occurences 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 3 1</pre>
```

until\_stnl

 $until\_stnl$ 

## 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

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#### **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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 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 2 1 3 2
```

val\_replacer

val\_replacer

## **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**

```
#1 1 NA
#2 004 FALSE
#3 NA NA
#4 FALSE NA
```

vector\_replacor

vector\_replacor

# Description

Allow to replace certain values in a vector.

```
vector_replacor(inpt_v = c(), sus_val = c(), rpl_val = c(), grep_ = FALSE)
```

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#### **Arguments**

inpt_v	is the input vector
sus_val	is a vector containing all the values that will be replaced
rpl_val	is a vector containing the value of the elements to be replaced (sus_val), so sus_val and rpl_val should be the same size $\frac{1}{2}$
grep_	is if the elements in sus_val should be equal to the elements to replace in inpt_v or if they just should found in the elements

## **Examples**

vec\_in\_datf vec\_in\_datf

# 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\_untl 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

vlookup\_datf 91

#### **Examples**

```
datf1 \leftarrow 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
#2
        2
               4
#3
       3
              3
              2
#4
       4
              1
       5
#5
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

vlookup\_datf

#### **Description**

Alow to perform a vlookup on a dataframe

```
vlookup_datf(datf, v_id, col_id = 1, included_col_id = "yes")
```

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#### **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))</pre>
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
                                               1
                               az2
#21
                               az3
                                        2
                                               3
#3
                               az4
                                        3
                                               2
```

wider\_datf wider\_datf

#### **Description**

Takes a dataframe as an input and the column to split according to a seprator.

#### Usage

```
wider_datf(inpt_datf, col_to_splt = c(), sep_ = "-")
```

"k" "11" 2

# **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**

#k-11 4

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