Package 'edm1'

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Description 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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 all_stat
all_stat
```

Description

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

Usage

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

Arguments

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

Examples

#

```
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",
               "var3"=c(45, 44, 43, 46, 45, 45, 42),
              "var4"=c("A", "A", "A", "A", "B", "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
                                   16 16.5
                                              6.97614984548545 48.666666666667
                              64
                  var1
#3
                var2-d
                           1
#4
                var2-z
                          3
#5
                             178 44.5
                                        45
                                             1.73205080756888
                                                                               3
                  var3
#6
                var4-A
                          2
#7
                var4-B
#8
                var4-C
                           1
```

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```
#9
       seco
                              43 21.5 21.5 0.707106781186548
#10
                  var1
                                                                             0.5
#11
                          1
                var2-d
#12
                var2-z
                         1
                              87 43.5 43.5 0.707106781186548
                                                                             0.5
#13
                  var3
#14
                var4-A
                         2
                var4-B
#15
                          0
#16
                var4-C
                          0
#
   quantile-0.75
#1
#2
               22
#3
#4
#5
            45.25
#6
#7
#8
#9
#10
            21.75
#11
#12
#13
            43.75
#14
#15
#16
```

any_join_datf

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

inpt_datf_1 is a list containing all the dataframe
join_type is the joint type. Defaults to inner but can be changed to a vector containing all the dataframes you want to take their ids to don external joints.

join_spe can be equal to a vector to do an external joints on all the dataframes. In this case, join_type should not be equal to "inner"

any_join_datf 5

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_l. It means that if my id is in the third column of the second dataframe and the first dataframe have 5 columns, the column number of the ids is 5 + 3 = 8

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 manner 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

Examples

#1

#2

#3

#4

<NA>

13

12

11

```
datf1 \leftarrow 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))
{\tt datf2} < - \ {\tt data.frame("val"=c(3, 7, 2, 4, 1, 2), "ids"=c("a", "z", "z", "a", "a", "a"),}
"bool"=c(TRUE, FALSE, FALSE, FALSE, TRUE, TRUE),
"second_ids"=c(13, 12, 8, 34, 22, 12))
datf3 <- data.frame("val"=c(1, 9, 2, 4), "ids"=c("a", "a", "z", "a"),</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
       1 a oui 11 3 a TRUE 13 1 a oui 13
  а
                              7
#3
        2.
                          12
                                  z FALSE
                                                  12
                                                       2.
                                                                         12
    7.
            z non
                                                           z non
#4
        4
                          8
                              4
                                  a FALSE
                                                  34
                                                       9
                                                                         11
    а
            a oui
                                                             oui
                                                           а
print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type=c(1), id_v=c("ids"),
                excl_col=c(), rtn_col=c()))
  ids val ids last second_ids val ids bool second_ids val ids last
#1
       1
           e oui
                          13 <NA> <NA>
                                       <NA>
                                                <NA> <NA> <NA> <NA>
                                   a TRUE
                          11
                                                   13
#2
    а
        1
            а
              oui
                              3
                                                        1
                                                             a oui
       2
                          12
                                7
                                                    12
                                                          2
#3
   Z
           Z
              non
                                     z FALSE
                                                               Z
                                                                 non
       4
                              4
                                                    34
                                                        9
#4
                          8
                                    a FALSE
    а
           а
              oui
                                                               а
                                                                 oui
# second_ids
```

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```
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
           a TRUE 13 <NA> <NA> <NA>
  a13
                                                     1
                                                         a oui
        7 z FALSE
                          12
#2
   7.12
                              2 z non
                                               12
                                                    2 z non
#3
   z8
        2 z FALSE
                          8 <NA> <NA> <NA>
                                              <NA> <NA> <NA> <NA>
                          34 <NA> <NA> <NA>
#4 a34
        4 a FALSE
                                              <NA> <NA> <NA> <NA>
                          22 <NA> <NA> <NA>
                                              <NA> <NA> <NA> <NA>
#5 a22
        1 a TRUE
        2 a TRUE
                         12 <NA> <NA> <NA>
                                              <NA> <NA> <NA> <NA>
#6 a12
#7 a13 <NA> <NA> <NA>
                        <NA> <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>
#10 a8 <NA> <NA> <NA>
                                                8 4 a oui
                        <NA> 4 a oui
#
   second_ids
#1
         13
#2
         12
#3
        <NA>
#4
        <NA>
#5
        <NA>
#6
        <NA>
#7
        <NA>
#8
         11
#9
        <NA>
#10
          8
print(any_join_datf(inpt_datf_l=list(datf1, datf2, datf3), join_type=c(1), id_v=c("ids"),
              excl_col=c(), rtn_col=c()))
#ids val ids last second_ids val ids bool second_ids val ids last
                  13 <NA> <NA> <NA>
                                         <NA> <NA> <NA> <NA>
      1 e oui
          a oui
                       11 3 a TRUE
                                             13 1 a oui
#3 z 2 z non
                      12
                           7 z FALSE
                                             12
                                                   2
#4
      4 a oui
                       8 4
                               a FALSE
                                              34
                                                    9
                                                        a oui
# second_ids
#1
       <NA>
#2
        13
#3
         12
#4
         11
```

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")
```

better_match 7

Arguments

inpt_v is the input vector

val is the special value

hmn is the number of special value element added

strt is the index from which appending begins, defaults to max which means the end of "inpt_v"

Examples

```
print(appndr(inpt_v=c(1:3), val="oui", hmn=5))
#[1] "1"    "2"    "3"    "oui" "oui" "oui" "oui" "oui"
print(appndr(inpt_v=c(1:3), val="oui", hmn=5, strt=1))
#[1] "1"    "oui" "oui" "oui" "oui" "oui" "2"    "3"
```

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
```

```
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
```

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can_be_num

can_be_num

Description

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

Usage

```
can_be_num(x)
```

Arguments

x

is the input value

Examples

```
print(can_be_num("34.677"))
#[1] TRUE
print(can_be_num("34"))
#[1] TRUE
print(can_be_num("3rt4"))
#[1] FALSE
print(can_be_num(34))
#[1] TRUE
```

closer_ptrn

closer_ptrn

Description

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

Usage

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

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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 internally the default value added to each element that does not have a sufficient 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", "aurevoi
#[[1]]
#[1] "bonjour"
#[[2]]
#[1] "lpoerc" "nonnour" "bonnour" "nonjour" "aurevoir"
#[[3]]
#[1] 1 1 2 7 8
#[[4]]
#[1] "lpoerc"
#[[5]]
#[1] "bonjour" "nonnour" "bonnour" "nonjour" "aurevoir"
#[[6]]
#[1] 7 7 7 7 7
#[[7]]
#[1] "nonnour"
#[[8]]#
#[1] "bonjour" "lpoerc" "bonnour" "nonjour" "aurevoir"
#[[9]]
#[1] 1 1 2 7 8
#[[10]]
#[1] "bonnour"
#[[11]]
#[1] "bonjour" "lpoerc" "nonnour" "nonjour" "aurevoir"
```

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```
#[[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
#[[7]]
#[1] "bonnour"
#[[8]]#
#[1] "bonjour" "lpoerc" "bonnour" "nonjour" "aurevoir"
#[[9]]
#[1] 0 1 2 7 8
#[[10]]
#[1] "aurevoir"
```

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```
#[[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

#[1] "bonjour" "bonnour" "aurevoir" "nonnour" "mois"

Examples

"fin"

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```
print(closer_ptrn_adv(inpt_v=c("aurevoir", "bonnour", "nonnour", "fin", "mois")))
#[[1]]
#[1] 117 107 119 37 64
#
#[[2]]
#[1] "aurevoir" "bonnour" "nonnour" "fin" "mois"
```

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

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```
#[1] 6 6 6 6
#[[1]][[7]]
#[1] 7 7 7
#[[1]][[8]]
#[1] 8 8 8
#[[1]][[9]]
#[1] 9
#[[1]][[10]]
#[1] 10
#[[1]][[11]]
#[1] 12
#[[1]][[12]]
#[1] 13 13 13
#[[1]][[13]]
#[1] 18 18 18
#[[1]][[14]]
#[1] 20
#
#[[2]]
# [1] "1" "1" "-" "2" "2" "-" "3" "3" "-" "4" "4" "-" "5" "5" "-"
#[16] "6" "6" "-" "7" "7" "-" "8" "8" "-" "9" "9" "-" "10" "10" "-"
#[31] "12" "12" "-" "13" "13" "-" "18" "18" "-" "20" "20"
print(clusterizer_v(inpt_v=sample.int(40, 26, replace=TRUE), w_v=letters, c_val=0.29))
#[[1]]
#[[1]][[1]]
#[1] "a"
#[[1]][[2]]
#[1] "b"
#[[1]][[3]]
#[1] "c" "d"
#[[1]][[4]]
#[1] "e" "f"
#[[1]][[5]]
#[1] "g" "h" "i" "j"
#[[1]][[6]]
#[1] "k"
#[[1]][[7]]
#[1] "1"
#[[1]][[8]]
```

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```
#[1] "m" "n"
#[[1]][[9]]
#[1] "o"
#[[1]][[10]]
#[1] "p"
#[[1]][[11]]
#[1] "q" "r"
#[[1]][[12]]
#[1] "s" "t" "u"
#[[1]][[13]]
#[1] "v"
#[[1]][[14]]
#[1] "w"
#[[1]][[15]]
#[1] "x"
#[[1]][[16]]
#[1] "y"
#[[1]][[17]]
#[1] "z"
#[[2]]
# [1] "13" "13" "-" "14" "14" "-" "15" "15" "-" "16" "16" "-" "17" "17" "-"
#[16] "19" "19" "-" "21" "21" "-" "22" "22" "-" "23" "23" "-" "25" "25" "-" #[31] "27" "27" "-" "29" "29" "-" "30" "30" "-" "31" "31" "-" "34" "34" "-"
#[46] "35" "35" "-" "37" "37"
```

colins_datf colins_datf

Description

Allow to insert vectors into a dataframe.

Usage

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

Arguments

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

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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 u
                        4 oui
3 oui
2 non
         2 oui
3 oui
#2
#3
               non
#4
         4
                                           Z
#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")),
                target_pos=list(c(1, 2), c("frst_col"))))
  frst_col cur_col scd_col cur_col cur_col
        1 oui 5 u
2 oui 4 z
3 oui 3 z
4 non 2 z
5 non 1 u
#1
#2
                                       oui
        3 oui
4 non
5 non
#3
                                      oui
#4
                                      non
#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.

Usage

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

```
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
```

16 converter_format

Examples

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

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

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

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

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

Description

Allow to convert a format to another

Usage

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

Arguments

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

cost_and_taxes 17

```
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

```
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
```

18 cut_v

```
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.

Usage

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

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

data_gen 19

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

type_	is a vector. Its arguments designates a column, a column can be made of numbers ("number"), string ("string") or both ("mixed")
strt_l	is a vector containing for each column the row from which the data will begin to be generated
nb_r	is a vector containing for each column, the number of row full from generated data
output	is the name of the output csv file, defaults to NA so no csv will be outputed by default

20 data_gen

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
           Х3
  4 2 <NA>
#1
  2
#2
          <NA>
  5 2 <NA>
#3
#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>
#17 1 <NA> abcd
#18 4 <NA>
           ab
#19 2 <NA> abcd
#20 3 <NA>
           ab
#21 3 <NA> abcd
#22 2 <NA> a
#23 4 <NA>
            abc
#24 1 <NA>
          abcd
#25 4 <NA>
           abc
#26 4 <NA>
            ab
#27 2 <NA>
            abc
#28 5 <NA>
            ab
#29 3 <NA>
           abc
#30 5 <NA> abcd
#31 2 <NA>
          abc
#32 2 <NA> abc
#33 1 <NA>
           ab
#34 5 <NA>
```

print(data_gen())

data_meshup 21

```
ab
ab
#35 4 <NA>
#36 1 <NA>
#37 1 <NA> abcde
#38 5 <NA> abc
#39 4 <NA>
#40 5 <NA> abcde
#41 2 <NA> ab
#42 3 <NA> ab
#43 2 <NA> ab
#44 4 <NA> abcd
#45 5 <NA> abcd
#46 3 <NA> abcd
#47 2 <NA> abcd
#48 3 <NA> abcd
#49 3 <NA> abcd
#50 4 <NA>
print(data_gen(strt_l=c(0, 0, 0), nb_r=c(5, 5, 5)))
     X2
# X1
           х3
#1 2
       a abc
#2
   3 abcde ab
#3 4 abcde
#4 1 3 abcd
#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 = "-"
)
```

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"), "_")
cols	are the colnames of the data generated in a csv
file_	is the file to which the data will be outputed, defaults to NA which means that the functio will return the dataframe generated and won't write it to a csy file

22 date_addr

```
sep_ is the separator of the csv outputed
organisation is the way variables include themselves, for instance ,resuming precedent ex-
ample, if organisation=c(1, 0) so the data output will be: d, a d, a1 e, c f, c f,
c1
unic_sep1 is the unic separator between variables (default is "_")
unic_sep2 is the unic separator between datasets (default is "-")
```

Examples

date_addr

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"
)
```

```
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 date1 - date2 and TRUE if you want date1 + date2
frmt1 is the format of date1 (snhdmy) (second, minute, hour, day, monthn year)
frmt2 is the format of date2 (snhdmy)
sep_ is the separator of date1 and date2
convert_to is the format of the outputed date
```

date_converter_reverse 23

Examples

```
print(date_addr(date1="25-02", date2="58-12-08", frmt1="dm", frmt2="shd", sep_="-",
                convert_to="dmy"))
#[1] "18-2-0"
print(date_addr(date1="25-02", date2="58-12-08", frmt1="dm", frmt2="shd", sep_="-",
                convert_to="dmy", add=TRUE))
#[1] "3-3-0"
print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
                convert_to="dmy", add=TRUE))
#[1] "27-3-2024"
print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
                convert_to="dmy", add=FALSE))
#[1] "23-1-2024"
print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
                 convert_to="n", add=FALSE))
#[1] "1064596320"
print(date_addr(date1="25-02-2024", date2="1-01", frmt1="dmy", frmt2="dm", sep_="-",
                 convert_to="s", add=FALSE))
#[1] "63875779200"
```

```
date_converter_reverse
```

date_converter_reverse

Description

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

Usage

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

24 dcr_untl

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
```

dcr_val 25

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
```

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)
```

26 equalizer_v

Arguments

datf1	is an an input dataframe
datf2	is an an input dataframe

Examples

```
datf1 <- data.frame(c(1:6), c("oui", "oui", "oui", "oui", "oui", "oui", c(6:1))
datf2 <- data.frame(c(1:7), c("oui", "oui", "oui", "oui", "non", "oui", "zz"))
print(diff_datf(datf1=datf1, datf2=datf2))
#[1] 5 1 5 2</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.

Usage

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

Arguments

inpt_v is the input vector containing all the characters

depth is the depth parameter, defaults to "max" which means that it is equal to the

character number of the element(s) in inpt_v that has the most

 ${\tt default_val} \quad is \ the \ default \ value \ that \ will \ be \ added \ to \ the \ output \ characters \ if \ those \ has \ an$

inferior length (characters) than the value of depth

```
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 27

```
extrt_only_v extrt_only_v
```

Description

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

Usage

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

Arguments

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

Examples

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

fillr fillr

Description

Allow to fill a vector by the last element n times

Usage

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

Arguments

```
inpt_v is the input vector

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

```
print(fillr(c("a", "b", "...3", "c")))
#[1] "a" "b" "b" "b" "c"
```

28 fold_rec

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 patter felements.

Usage

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

Arguments

```
cur_v is the input vector

pttrn_v is the vector containing all the patterns that may be contained in cur_v

wrk_v is a vector containing all the indexes of cur_v taken in count in the function
```

Examples

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 = ".")
```

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

fold_rec2 29

Description

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

Usage

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

Arguments

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

Description

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

Usage

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

Arguments

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

```
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"
```

30 geo_min

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

```
in_{-} \leftarrow data.frame(c(11, 33, 55), c(113, -143, 167))
in2_{-} \leftarrow data.frame(c(12, 55), c(115, 165))
print(geo_min(inpt_datf=in_, established_datf=in2_))
#
          X1
                    X2
   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_))
         Х1
                   X2
         NA 4343.720
#1
#2 26465.63
             NA
#3
        NA 5825.517
```

get_rec 31

Description

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

Usage

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

Arguments

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

Description

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

Usage

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

Arguments

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

32 groupr_datf

```
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.

Usage

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

Arguments

```
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 ++ ++++
```

id_keepr 33

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

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 "
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

34 incr_fillr

```
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
```

```
print(incr_fillr(inpt_v=c(1, 2, 4, 5, 9, 10),
                wrk_v=NA,
               default_val="increasing"))
#[1] 1 2 3 4 5 6 7 8 9 10
print(incr_fillr(inpt_v=c(1, 1, 2, 4, 5, 9),
                wrk_v=c("ok", "ok", "ok", "ok", "ok"),
                default_val=NA))
#[1] "ok" "ok" "ok" NA "ok" "ok" NA
                                       NA
                                            NΑ
print(incr_fillr(inpt_v=c(1, 2, 4, 5, 9, 10),
                wrk_v=NA,
                default_val="NAN"))
#[1] "1"
           "2"
                "NAN" "4"
                             "5"
                                  "NAN" "NAN" "NAN" "9"
                                                           "10"
```

insert_datf 35

insert_datf ϵ	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
# 4
                6
                       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
# 2
                3
                       2
                                             4
# 3
                5
                       1
                                             5
# 4
                6
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
                       4
```

36 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

Usage

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

Arguments

is the input dataframe
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 37

```
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
```

38 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

```
is the input list

max_ is a value you are sure is the minimum step value of all the sub-lists

get_lst is the parameter that, if set to True, will keep the last values of vectors in the return value if the last step exceeds the end value of the vector.
```

Examples

```
print(inter_max(inpt_l=list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)), get_lst=TRUE))
#[[1]]
#[1] 0 4
#
#[[2]]
#[1] 0 4
#
#[[3]]
#[1] 1.0 2.3
print(inter_max(inpt_l=list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)), get_lst=FALSE))
# [[1]]
#[1] 0 4
#
#[[2]]
#[1] 0 4
#
#[[3]]
#[1] 1
```

inter_min inter_min

Description

Takes as input a list of vectors composed of ints or floats ascendly ordered (intervals) that can have a different step to one of another element ex: list(c(0, 2, 4), c(0, 4), c(1, 2, 2.3)). This function will return the list of vectors with the same steps preserving the begin and end value of each interval. The way the 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 39

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.

40 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
```

leap_yr 41

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
```

letter_to_nb

 $letter_to_nb$

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
```

42 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
```

multitud 43

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_ = "")
```

Arguments

is the list

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"
```

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

v

is the number of the column

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

44 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

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

```
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 45

#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)
```

no

yes

Examples

#2

#3

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

Description

nest_v

Nest two vectors according to the following parameters.

no

yes

nest_v

Usage

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

46 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

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

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 47

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=">-2-4
#[1] "non"

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

48 pairs_findr

Arguments

```
inpt_v the input dataframe
```

Examples

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 = ")")
```

Arguments

inpt is the input character

ptrn1 is the first pattern ecountered in the pair

ptrn2 is the second pattern in the pair

```
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
```

paste_datf 49

Description

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

Usage

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

Arguments

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

Examples

```
print(paste_datf(inpt_datf=data.frame(c(1, 2, 1), c(33, 22, 55))))
#[1] "133" "222" "155"
```

```
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

50 pattern_gettr

Examples

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

pattern_tuning 51

```
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
```

Examples

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

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

pattern_tuning pattern_tuning

Description

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

Usage

```
pattern_tuning(
  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"
```

52 ptrn_twkr

chr ptrn_switchr
chr <i>ptrn_switchi</i>

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

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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

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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 55

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

Examples

```
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

Usage

```
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
#
#[[2]]
#[1] 1 1
#
#[[3]]
#[1] 1 2 4
```

see_datf

see_datf

Description

Allow to return a dataframe with special value cells (ex: TRUE) where the condition entered are respected and another special value cell (ex: FALSE) where these are not

Usage

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

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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]")))
```

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```
# X1 X2
#1 TRUE FALSE
#2 TRUE FALSE
#3 TRUE FALSE
```

see_file

see_file

Description

Allow to get the filename or its extension

Usage

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

Arguments

string_ 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

Examples

```
print(see_file(string_="file.abc.xyz"))
#[1] ".abc.xyz"
print(see_file(string_="file.abc.xyz", ext=FALSE))
#[1] "file"
print(see_file(string_="file.abc.xyz", index_ext=2))
#[1] ".xyz"
```

see_idx

see_idx

Description

Returns a boolean vector to see if a set of elements contained in v1 is also contained in another vector (v2)

Usage

```
see_idx(v1, v2)
```

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Arguments

```
v1 is the first vector
v2 is the second vector
```

Examples

```
print(see_idx(v1=c("oui", "non", "peut", "oo"), v2=c("oui", "peut", "oui")))
#[1] TRUE FALSE TRUE FALSE
```

see inside

see inside

Description

Return a list containing all the column of the files in the current directory with a chosen file extension and its associated file and sheet if xlsx. For example if i have 2 files "out.csv" with 2 columns and "out.xlsx" with 1 column for its first sheet and 2 for its second one, the return will look like this: c(column_1, column_2, column_3, column_4, column_5, unique_separator, "1-2-out.csv", "3-3-sheet_1-out.xlsx", 4-5-sheet_2-out.xlsx)

Usage

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

Arguments

pattern_ is a vector containin the file extension of the spreadsheets ("xlsx", "csv"...)

path_ is the path where are located the files

sep_ is a vector containing the separator for each csv type file in order following the operating system file order, if the vector does not match the number of the csv files found, it will assume the separator for the rest of the files is the same as the last csv file found. It means that if you know the separator is the same for all the csv type files, you just have to put the separator once in the vector.

unique_sep is a pattern that you know will never be in your input files

rec is a boolean allows to get files recursively if set to TRUE, defaults to TRUE If x

is 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:

str_remove_untl 61

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

```
inpt_v is the input vector
ptrn_rm_v is a vector containing the patterns to remove
untl is a list containing the occurence(s) of each pattern to remove in the elements.
nvr_following_ptrn
```

is a sequel of characters that you are sure is not present in any of the elements in inpt_v

Examples

```
vec <- c("45/56-/98mm", "45/56-/98mm", "45/56-/98-mm//")
print(str_remove_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>
```

```
swipr 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.

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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
```

Examples

```
datf <- data.frame("col1"=c("Af", "Al", "Al", "Al", "Arg", "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")))
# 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
           В
datf <- data.frame("col1"=c("Af", "Arg", "Al", "Al", "Arg", "Arg", "Arg", "Arm", "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"))
    col1 col2
#1
    Αf
          В
#2 Arg
           G
#3 Al
           G
#4
          S
    Al
#5 Arg
          S
#6 Arg
          В
#7
   Arg
           В
#8
   Arm
           G
#9 Arm
           В
```

```
unique_datf unique_datf
```

Description

Returns the input dataframe with the unique columns or rows.

unique_ltr_from_v 63

Usage

```
unique_datf(inpt_datf, col = FALSE)
```

Arguments

inpt_datf is the input dataframe
col is a parameter that specifies if the dataframe returned should have unique columns
or rows, defaults to F, so the dataframe returned by default has unique rows

Examples

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

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
```

```
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"
```

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unique_pos

unique_pos

Description

Allow to find the first index of the unique values from a vector.

Usage

```
unique_pos(vec)
```

Arguments

vec

is the input vector

Examples

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

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

```
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 65

```
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

```
vector_replacor vector_replacor
```

Description

Allow to replace certain values in a vector.

Usage

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

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

66 vec_in_datf

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

```
datf1 <- data.frame(c(1:5), c(5:1), c("a", "z", "z", "z", "a"))</pre>
print(datf1)
  c.1.5. c.5.1. c..a...z...z...z....a..
#1
      1
            5
#2
       2
             4
                                        Z
#3
       3
             3
             2
#4
       4
```

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```
5 1
#5
                                          а
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

Usage

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

Arguments

```
datf is the input dataframe

v_id is a vector containing the ids

col_id is the column that contains the ids (default is equal to 1)

included_col_id

is if the result should return the col_id (default set to yes)
```

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Examples

```
datf1 \leftarrow data.frame(c("az1", "az3", "az4", "az2"), c(1:4), c(4:1))
print(vlookup_datf(datf=datf1, v_id=c("az1", "az2", "az3", "az4")))
    c..az1....az3....az4....az2.. c.1.4. c.4.1.
#2
                               az1
                                        1
#4
                               az2
                                         4
                                                1
#21
                                         2
                                                3
                               az3
#3
                                        3
                                                2
                               az4
```

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_ = "-")
```

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
```

```
datf1 \leftarrow data.frame(c(1:5), c("o-y", "hj-yy", "er-y", "k-ll", "ooo-mm"), c(5:1))
{\tt datf2} < - \ {\tt data.frame("col1"=c(1:5), "col2"=c("o-y", "hj-yy", "er-y", "k-ll", "ooo-mm"))}
print(wider_datf(inpt_datf=datf1, col_to_splt=c(2), sep_="-"))
       pre_datf X.o. X.y.
       1
              "o" "y" 5
#0-y
               "hj" "yy" 4
#hj-yy 2
              "er" "y" 3
#er-y 3
#k-11 4
              "k" "11" 2
#000-mm 5
               "000" "mm" 1
print(wider_datf(inpt_datf=datf2, col_to_splt=c("col2"), sep_="-"))
       pre_datf X.o. X.y.
               "о" "у"
#о-у
      1
              "hj" "yy"
#hj-yy 2
              "er" "y"
#er-y 3
              "k" "11"
#k-11 4
              "000" "mm"
#000-mm 5
```

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