

## Ceci est le fichier de test de xstring.

Toutes les situations ne sont pas envisagées, mais au moins un grand nombre ! Les macros sont examinées dans l'ordre logique du code.

Lorsque le résultat contient des espaces ou peut conduire à des doutes, il sera entouré de ”|“, étant entendu que ”||“ est une chaîne vide.

### Le mode `\fullexpandarg`

#### Le test `\IfSubStr`

```
\IfSubStr{abcdef}{cd}{vrai}{faux} vrai
\IfSubStr{a b c d}{b c}{vrai}{faux} vrai
\IfSubStr{a b c d}{bc}{vrai}{faux} faux
\IfSubStr{abcdef}{}{vrai}{faux} faux
\IfSubStr{a}{a}{vrai}{faux} vrai
\IfSubStr{aaaa}{aa}{vrai}{faux} vrai
\IfSubStr{a}{aa}{vrai}{faux} faux
\IfSubStr{éàèï}{à}{vrai}{faux} vrai
\IfSubStr{éàèï}{ù}{vrai}{faux} faux
\IfSubStr{ÊÂÇ}{Ç}{vrai}{faux} vrai
\IfSubStr{a}{}{vrai}{faux} faux
\IfSubStr{}{a}{vrai}{faux} faux
\IfSubStr{}{}{vrai}{faux} faux
\IfSubStr[2]{abaca}{a}{vrai}{faux} vrai
\IfSubStr[3]{abaca}{a}{vrai}{faux} vrai
\IfSubStr[4]{abaca}{a}{vrai}{faux} faux
\IfSubStr[-2]{abaca}{a}{vrai}{faux} faux
```

#### Le test `\IfBeginWith`

```
\IfBeginWith{abcdef}{adc}{vrai}{faux} faux
\IfBeginWith{abcdef}{abcd}{vrai}{faux} vrai
\IfBeginWith{ a b c }{ a}{vrai}{faux} vrai
\IfBeginWith{a b c d}{ab}{vrai}{faux} faux
\IfBeginWith{a}{a}{vrai}{faux} vrai
\IfBeginWith{a}{aa}{vrai}{faux} faux
\IfBeginWith{éàèï}{è}{vrai}{faux} faux
\IfBeginWith{éàèï}{éà}{vrai}{faux} vrai
\IfBeginWith{ÊÂÇ}{Ê}{vrai}{faux} vrai
\IfBeginWith{a}{}{vrai}{faux} faux
\IfBeginWith{}{a}{vrai}{faux} faux
\IfBeginWith{}{}{vrai}{faux} faux
```

#### Le test `\IfEndWith`

```
\IfEndWith{abcdef}{ab}{vrai}{faux} faux
\IfEndWith{abcdef}{f}{vrai}{faux} vrai
\IfEndWith{ a b c }{c}{vrai}{faux} faux
\IfEndWith{ a b c }{ }{vrai}{faux} vrai
\IfEndWith{a}{a}{vrai}{faux} vrai
\IfEndWith{a}{aa}{vrai}{faux} faux
\IfEndWith{éàèï}{è}{vrai}{faux} faux
\IfEndWith{éàèï}{i}{vrai}{faux} vrai
\IfEndWith{ÊÂÇ}{Ç}{vrai}{faux} vrai
\IfEndWith{a}{}{vrai}{faux} faux
\IfEndWith{}{a}{vrai}{faux} faux
\IfEndWith{}{}{vrai}{faux} faux
```

#### Le test `\IfSubStrBefore`

```
\IfSubStrBefore{abcdef}{b}{e}{vrai}{faux} vrai
\IfSubStrBefore{abcdef}{e}{c}{vrai}{faux} faux
\IfSubStrBefore{ a b c }{ }{b}{vrai}{faux} faux
\IfSubStrBefore{ a b c }{ b}{c}{vrai}{faux} vrai
\IfSubStrBefore{abcdef}{z}{a}{vrai}{faux} faux
\IfSubStrBefore{abcdef}{y}{z}{vrai}{faux} faux
```

```

\IfSubStrBefore{abcdef}{a}{z}{vrai}{faux} faux
\IfSubStrBefore{aaa}{a}{aa}{vrai}{faux} faux
\IfSubStrBefore{abcdef}{a}{a}{vrai}{faux} faux
\IfSubStrBefore{éàèi}{à}{i}{vrai}{faux} vrai
\IfSubStrBefore{éàèi}{é}{à}{vrai}{faux} faux
\IfSubStrBefore{ÉÂÇ}{Ç}{É}{vrai}{faux} faux
\IfSubStrBefore{a}{a}{a}{vrai}{faux} faux
\IfSubStrBefore{}{a}{b}{vrai}{faux} faux
\IfSubStrBefore{a}{}{a}{vrai}{faux} faux
\IfSubStrBefore{}{a}{a}{vrai}{faux} faux
\IfSubStrBefore{}{}{}{vrai}{faux} faux
\IfSubStrBefore[1,1]{abacada}{d}{a}{vrai}{faux} faux
\IfSubStrBefore[1,2]{abacada}{d}{a}{vrai}{faux} faux
\IfSubStrBefore[1,3]{abacada}{d}{a}{vrai}{faux} faux
\IfSubStrBefore[1,4]{abacada}{d}{a}{vrai}{faux} vrai
\IfSubStrBefore[2,1]{maman papa}{a}{p}{vrai}{faux} vrai
\IfSubStrBefore[2,2]{maman papa}{a}{p}{vrai}{faux} vrai
\IfSubStrBefore[4,2]{maman papa}{a}{p}{vrai}{faux} faux

```

## Le test \IfStrBehind

```

\IfSubStrBehind{abcdef}{b}{e}{vrai}{faux} faux
\IfSubStrBehind{abcdef}{e}{c}{vrai}{faux} vrai
\IfSubStrBehind{ a b c }{ }{b}{vrai}{faux} faux
\IfSubStrBehind{ a b c }{ c }{ a }{vrai}{faux} faux
\IfSubStrBehind{abcdef}{z}{a}{vrai}{faux} faux
\IfSubStrBehind{abcdef}{y}{z}{vrai}{faux} faux
\IfSubStrBehind{abcdef}{a}{z}{vrai}{faux} faux
\IfSubStrBehind{aaa}{a}{aa}{vrai}{faux} faux
\IfSubStrBehind{abcdef}{a}{a}{vrai}{faux} faux
\IfSubStrBehind{éàèi}{ï}{à}{vrai}{faux} vrai
\IfSubStrBehind{éàèi}{à}{é}{vrai}{faux} faux
\IfSubStrBehind{ÉÂÇ}{Â}{Ç}{vrai}{faux} faux
\IfSubStrBehind{a}{a}{a}{vrai}{faux} faux
\IfSubStrBehind{}{a}{b}{vrai}{faux} faux
\IfSubStrBehind{a}{}{a}{vrai}{faux} faux
\IfSubStrBehind{}{a}{a}{vrai}{faux} faux
\IfSubStrBehind{}{}{}{vrai}{faux} faux
\IfSubStrBehind[1,1]{abacada}{c}{a}{vrai}{faux} faux
\IfSubStrBehind[1,2]{abacada}{c}{a}{vrai}{faux} vrai
\IfSubStrBehind[1,3]{abacada}{c}{a}{vrai}{faux} faux
\IfSubStrBehind[2,1]{maman papa}{a}{p}{vrai}{faux} faux
\IfSubStrBehind[3,1]{maman papa}{a}{p}{vrai}{faux} vrai
\IfSubStrBehind[3,2]{maman papa}{a}{p}{vrai}{faux} faux
\IfSubStrBehind[4,2]{maman papa}{a}{p}{vrai}{faux} vrai

```

## Le test \IfInteger

```

\IfInteger{156}{vrai}{faux} faux
\IfInteger{1.6}{vrai}{faux} faux
\IfInteger{7a5}{vrai}{faux} faux
\IfInteger{+9}{vrai}{faux} faux
\IfInteger{-15}{vrai}{faux} faux
\IfInteger{0}{vrai}{faux} faux
\IfInteger{-1,2}{vrai}{faux} faux
\IfInteger{1.}{vrai}{faux} faux
\IfInteger{-00}{vrai}{faux} faux
\IfInteger{+}{vrai}{faux} faux
\IfInteger{-}{vrai}{faux} faux
\IfInteger{.}{vrai}{faux} faux
\IfInteger{}{vrai}{faux} faux

```

## Le test \IfDecimal

```

\IfDecimal{6}{vrai}{faux} faux
\IfDecimal{-78}{vrai}{faux} faux
\IfDecimal{3.14}{vrai}{faux} faux
\IfDecimal{3,14}{vrai}{faux} faux

```

```

\IfDecimal{1..5}{vrai}{faux} faux
\IfDecimal{-9.8}{vrai}{faux} faux
\IfDecimal{+9.8}{vrai}{faux} faux
\IfDecimal{-9,8}{vrai}{faux} faux
\IfDecimal{+9,8}{vrai}{faux} faux
\IfDecimal{+6.7.}{vrai}{faux} faux
\IfDecimal{.5}{vrai}{faux} faux
\IfDecimal{1.}{vrai}{faux} faux
\IfDecimal{-.99}{vrai}{faux} faux
\IfDecimal{-5.}{vrai}{faux} faux
\IfDecimal{5a9.}{vrai}{faux} faux
\IfDecimal{+}{vrai}{faux} faux
\IfDecimal{-}{vrai}{faux} faux
\IfDecimal{.}{vrai}{faux} faux
\IfDecimal{}{vrai}{faux} faux

```

## Le test \IfStrEq

```

\IfStrEq{abcdef}{abcdef}{vrai}{faux} vrai
\IfStrEq{a b c}{a b c}{vrai}{faux} vrai
\IfStrEq{abcd}{abc}{vrai}{faux} faux
\IfStrEq{aab}{ab}{vrai}{faux} faux
\IfStrEq{aab}{aa}{vrai}{faux} faux
\IfStrEq{1.2}{1.20}{vrai}{faux} faux
\IfStrEq{3,4}{3.4}{vrai}{faux} faux
\IfStrEq{ }{ }{vrai}{faux} vrai
\IfStrEq{}{a}{vrai}{faux} faux
\IfStrEq{a}{}{vrai}{faux} faux
\IfStrEq{}{}{vrai}{faux} vrai

```

## Le test \IfEq

```

\IfEq{abcdef}{abcdef}{vrai}{faux} vrai
\IfEq{a b c}{a b c}{vrai}{faux} vrai
\IfEq{abcd}{abc}{vrai}{faux} faux
\IfEq{aab}{ab}{vrai}{faux} faux
\IfEq{aab}{aa}{vrai}{faux} faux
\IfEq{1.2}{1.20}{vrai}{faux} faux
\IfEq{+1.0000}{1}{vrai}{faux} faux
\IfEq{-10}{10}{vrai}{faux} faux
\IfEq{1,2}{1.2}{vrai}{faux} faux
\IfEq{.5}{0.5}{vrai}{faux} faux
\IfEq{,5}{0,5}{vrai}{faux} faux
\IfEq{10}{dix}{vrai}{faux} faux
\IfEq{123}{1a3}{vrai}{faux} faux
\IfEq{0}{}{vrai}{faux} faux
\IfEq{++10}{+10}{vrai}{faux} faux
\IfEq{-10}{+10}{vrai}{faux} faux
\IfEq{a}{}{vrai}{faux} faux
\IfEq{}{a}{vrai}{faux} faux
\IfEq{}{}{vrai}{faux} vrai

```

## La macro \StrBefore

```

\StrBefore{abcdef}{e} abc
\StrBefore{abcdef}{a} ||
\StrBefore{abcdef}{z} ||
\StrBefore{a b c d}{c} |a b |
\StrBefore{a b c d}{ } |a|
\StrBefore[2]{a b c d}{ } |a b|
\StrBefore[3]{a b c d}{ } |a b c|
\StrBefore[9]{a b c d}{ } ||
\StrBefore[-7]{a b c d}{ } ||
\StrBefore{abcdef}{Z} ||
\StrBefore{éàèì}{è} éà
\StrBefore[2]{étété}{é} ét
\StrBefore{ÉÂÇ}{Â} É
\StrBefore[1]{aaaaaa}{aa} ||

```

```

\StrBefore[2]{aaaaaa}{aa} aa
\StrBefore[3]{aaaaaa}{aa} aaaa
\StrBefore[4]{aaaaaa}{aa} ||
\StrBefore{a}{f} ||
\StrBefore{}{a} ||
\StrBefore{}{} ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrBefore{abcdef}{e}[\aa]\aa abc
\StrBefore{abcdef}{a}[\aa]\aa ||
\StrBefore{abcdef}{z}[\aa]\aa ||
\StrBefore{a b c d}{c}[\aa]\aa |a b |
\StrBefore{a b c d}{f}[\aa]\aa |a|
\StrBefore[2]{a b c d}{f}[\aa]\aa |a b|
\StrBefore[3]{a b c d}{f}[\aa]\aa |a b c|
\StrBefore[9]{a b c d}{f}[\aa]\aa ||
\StrBefore[-7]{a b c d}{f}[\aa]\aa ||
\StrBefore{abcdef}{Z}[\aa]\aa ||
\StrBefore{éâèï}{è}[\aa]\aa éà
\StrBefore[2]{étéé}{é}[\aa]\aa ét
\StrBefore{ÉÂÇ}{Â}[\aa]\aa É
\StrBefore[1]{aaaaaa}{aa}[\aa]\aa ||
\StrBefore[2]{aaaaaa}{aa}[\aa]\aa aa
\StrBefore[3]{aaaaaa}{aa}[\aa]\aa aaaa
\StrBefore[4]{aaaaaa}{aa}[\aa]\aa ||
\StrBefore{a}{}[\aa]\aa ||
\StrBefore{}{a}[\aa]\aa ||
\StrBefore{}{}[\aa]\aa ||

```

## La macro \StrBehind

```

\StrBehind{abcdef}{e} def
\StrBehind{abcdef}{a} |bcdef|
\StrBehind{abcdef}{z} ||
\StrBehind{a b c d}{c} |d|
\StrBehind{a b c d}{f} |b c d|
\StrBehind[2]{a b c d}{f} |c d|
\StrBehind[3]{a b c d}{f} |d|
\StrBehind[9]{a b c d}{f} ||
\StrBehind[-7]{a b c d}{f} ||
\StrBehind{abcdef}{Z} ||
\StrBehind{éâèï}{è} i
\StrBehind{ÉÂÇ}{Â} Ç
\StrBehind[1]{aaaaaa}{aa} aaaa
\StrBehind[2]{aaaaaa}{aa} aa
\StrBehind[3]{aaaaaa}{aa} ||
\StrBehind[4]{aaaaaa}{aa} ||
\StrBehind{a}{f} ||
\StrBehind{}{a} ||
\StrBehind{}{} ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrBehind{abcdef}{e}[\aa]\aa def
\StrBehind{abcdef}{a}[\aa]\aa |bcdef|
\StrBehind{abcdef}{z}[\aa]\aa ||
\StrBehind{a b c d}{c}[\aa]\aa |d|
\StrBehind{a b c d}{f}[\aa]\aa |b c d|
\StrBehind[2]{a b c d}{f}[\aa]\aa |c d|
\StrBehind[3]{a b c d}{f}[\aa]\aa |d|
\StrBehind[9]{a b c d}{f}[\aa]\aa ||
\StrBehind[-7]{a b c d}{f}[\aa]\aa ||
\StrBehind{abcdef}{Z}[\aa]\aa ||
\StrBehind{éâèï}{è}[\aa]\aa i
\StrBehind{ÉÂÇ}{Â}[\aa]\aa Ç
\StrBehind[1]{aaaaaa}{aa}[\aa]\aa aaaa
\StrBehind[2]{aaaaaa}{aa}[\aa]\aa aa

```

```

\StrBehind[3]{aaaaaa}{aa}[\aa]\aa ||
\StrBehind[4]{aaaaaa}{aa}[\aa]\aa ||
\StrBehind{a}{ }[\aa]\aa ||
\StrBehind{}{a}[\aa]\aa ||
\StrBehind{}{}[\aa]\aa ||

```

## La macro \StrBetween

```

\StrBetween{abcdef}{b}{e} cd
\StrBetween{aZaaaaZa}{Z}{Z} ||
\StrBetween[1,2]{aZaaaaZa}{Z}{Z} |aaaa|
\StrBetween{a b c d}{a}{c} | b |
\StrBetween{a b c d}{a }{ d} | b c|
\StrBetween{abcdef}{a}{Z} ||
\StrBetween{abcdef}{Y}{Z} ||
\StrBetween[2,5]{aAaBaCaDa}{a}{a} |BaCaD|
\StrBetween[4,1]{ab1ab2ab3ab4ab}{b}{a} ||
\StrBetween[3,4]{a b c d e f}{ }{ } |d|
\StrBetween[1,3]{aaaaaa}{aa}{aa} aa
\StrBetween{éàèï}{é}{i} àè
\StrBetween{ÉÀÇ}{É}{Ç} À
\StrBetween{abcdef}{a}{ } ||
\StrBetween{abcdef}{ }{f} ||
\StrBetween{}{a}{b} ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrBetween{abcdef}{b}{e}[\aa]\aa cd
\StrBetween{aZaaaaZa}{Z}{Z}[\aa]\aa ||
\StrBetween[1,2]{aZaaaaZa}{Z}{Z}[\aa]\aa |aaaa|
\StrBetween{a b c d}{a}{c}[\aa]\aa | b |
\StrBetween{a b c d}{a }{ d}[\aa]\aa | b c|
\StrBetween{abcdef}{a}{Z}[\aa]\aa ||
\StrBetween{abcdef}{Y}{Z}[\aa]\aa ||
\StrBetween[2,5]{aAaBaCaDa}{a}{a}[\aa]\aa |BaCaD|
\StrBetween[4,1]{ab1ab2ab3ab4ab}{b}{a}[\aa]\aa ||
\StrBetween[3,4]{a b c d e f}{ }{ }[\aa]\aa |d|
\StrBetween[1,3]{aaaaaa}{aa}{aa}[\aa]\aa aa
\StrBetween{éàèï}{é}{i}[\aa]\aa àè
\StrBetween{ÉÀÇ}{É}{Ç}[\aa]\aa À
\StrBetween{abcdef}{a}{ }[\aa]\aa ||
\StrBetween{abcdef}{ }{f}[\aa]\aa ||
\StrBetween{}{a}{b}[\aa]\aa ||

```

## La macro \StrSubstitute

```

\StrSubstitute{abcdef}{c}{ZZ} abZZdef
\StrSubstitute{aaaaaaa}{aa}{w} wwwa
\StrSubstitute[0]{abacada}{a}{.} .b.c.d.
\StrSubstitute[1]{abacada}{a}{.} .bacada
\StrSubstitute[2]{abacada}{a}{.} .b.cada
\StrSubstitute[3]{abacada}{a}{.} .b.c.da
\StrSubstitute[4]{abacada}{a}{.} .b.c.d.
\StrSubstitute[5]{abacada}{a}{.} .b.c.d.
\StrSubstitute{a b c d e}{ }{,} a,b,c,d,e
\StrSubstitute{a b c d e}{ }{ } abcde
\StrSubstitute{éàèï}{é}{Z} éàZi
\StrSubstitute{ÉÀÇ}{É}{Ç} ÉÀc
\StrSubstitute{abcdef}{ }{A} abcdef
\StrSubstitute{abcdef}{ }{ } abcdef
\StrSubstitute{}{a}{b} ||
\StrSubstitute{}{ }{ } ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrSubstitute{abcdef}{c}{ZZ}[\aa]\aa abZZdef
\StrSubstitute{aaaaaaa}{aa}{w}[\aa]\aa wwwa
\StrSubstitute[0]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute[1]{abacada}{a}{.}[\aa]\aa .bacada

```

```

\StrSubstitute[2]{abacada}{a}{.}[\aa]\aa .b.cada
\StrSubstitute[3]{abacada}{a}{.}[\aa]\aa .b.c.da
\StrSubstitute[4]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute[5]{abacada}{a}{.}[\aa]\aa .b.c.d.
\StrSubstitute{a b c d e}{ }{,}[\aa]\aa a,b,c,d,e
\StrSubstitute{a b c d e}{ }{ }[\aa]\aa abcde
\StrSubstitute{éâëï}{è}{Z}[\aa]\aa éâZi
\StrSubstitute{ÉÂÇ}{Ç}{c}[\aa]\aa ÉÂc
\StrSubstitute{abcdef}{ }{A}[\aa]\aa abcdef
\StrSubstitute{abcdef}{ }{ }[\aa]\aa abcdef
\StrSubstitute{}{a}{b}[\aa]\aa ||
\StrSubstitute{}{ }{ }[\aa]\aa ||

```

## La macro \StrDel

```

\StrDel{a1a2a3a4}{a} 1234
\StrDel[2]{a1a2a3a4}{a} 12a3a4
\StrDel[-2]{a1a2a3a4}{a} 1234
\StrDel[10]{a1a2a3a4}{a} 1234
\StrDel[3]{a b c d e}{a} b c d e

```

Mêmes exemples avec l'argument optionnel :

```

\StrDel{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[2]{a1a2a3a4}{a}[\aa]\aa 12a3a4
\StrDel[-2]{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[10]{a1a2a3a4}{a}[\aa]\aa 1234
\StrDel[3]{a b c d e}{a}[\aa]\aa b c d e

```

## La macro \StrLen

```

\StrLen{abcdef} 6
\StrLen{a b c} 5
\StrLen{ a b c } 7
\StrLen{a} 1
\StrLen{éâëï} 4
\StrLen{ÉÂÇ} 3
\StrLen{} 0

```

Mêmes exemples avec l'argument optionnel :

```

\StrLen{abcdef}[\aa]\aa 6
\StrLen{a b c}[\aa]\aa 5
\StrLen{ a b c }[\aa]\aa 7
\StrLen{a}[\aa]\aa 1
\StrLen{éâëï}[\aa]\aa 4
\StrLen{ÉÂÇ}[\aa]\aa 3
\StrLen{}[\aa]\aa 0

```

## la macro \StrSplit

```

\StrSplit{abcde}{3}{\xx}{\yy}\#\xx\#\quad\#\yy\# #abc# #de#
\StrSplit{abcde}{1}{\xx}{\yy}\#\xx\#\quad\#\yy\# #a# #bcde#
\StrSplit{abcde}{0}{\xx}{\yy}\#\xx\#\quad\#\yy\# ## #abcde#
\StrSplit{abcde}{-5}{\xx}{\yy}\#\xx\#\quad\#\yy\# ## #abcde#
\StrSplit{abcde}{20}{\xx}{\yy}\#\xx\#\quad\#\yy\# #abcde# ##
\StrSplit{a b c}{4}{\xx}{\yy}\#\xx\#\quad\#\yy\# #a b # #c#
\StrSplit{éâçù}{2}{\xx}{\yy}\#\xx\#\quad\#\yy\# #éâ# #çù#
\StrSplit{}{3}{\xx}{\yy}\#\xx\#\quad\#\yy\# ## ##

```

## la macro \StrMid

```

\StrMid{abcdef}{2}{5} bcde
\StrMid{a b c d}{2}{6} | b c |
\StrMid{abcdef}{4}{2} ||
\StrMid{abcdef}{-4}{3} abc
\StrMid{abcdef}{-4}{-1} ||
\StrMid{abcdef}{-4}{20} abcdef
\StrMid{abcdef}{8}{10} ||
\StrMid{abcdef}{2}{2} b
\StrMid{éâëï}{2}{3} àè

```

```

\StrMid{ÉÀÇ}{2}{3}  ÀÇ
\StrMid{aaaaaa}{3}{6}  aaaa
\StrMid{}{4}{5}  ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrMid{abcdef}{2}{5}[\aa]\aa  bcde
\StrMid{a b c d}{2}{6}[\aa]\aa  | b c |
\StrMid{abcdef}{4}{2}[\aa]\aa  ||
\StrMid{abcdef}{-4}{3}[\aa]\aa  abc
\StrMid{abcdef}{-4}{-1}[\aa]\aa  ||
\StrMid{abcdef}{-4}{20}[\aa]\aa  abcdef
\StrMid{abcdef}{8}{10}[\aa]\aa  ||
\StrMid{abcdef}{2}{2}[\aa]\aa  b
\StrMid{éàèï}{2}{3}[\aa]\aa  àè
\StrMid{ÉÀÇ}{2}{3}[\aa]\aa  ÀÇ
\StrMid{aaaaaa}{3}{6}[\aa]\aa  aaaa
\StrMid{}{4}{5}[\aa]\aa  ||

```

## La macro \StrGobbleLeft

```

\StrGobbleLeft{abcdef}{3}  def
\StrGobbleLeft{a b c d}{3}  | c d|
\StrGobbleLeft{abcdef}{-3}  abcdef
\StrGobbleLeft{abcdef}{9}  ||
\StrGobbleLeft{éàèï}{2}  èï
\StrGobbleLeft{ÉÀÇ}{1}  ÀÇ
\StrGobbleLeft{aaaaa}{4}  a
\StrGobbleLeft{}{2}  ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrGobbleLeft{abcdef}{3}[\aa]\aa  def
\StrGobbleLeft{a b c d}{3}[\aa]\aa  | c d|
\StrGobbleLeft{abcdef}{-3}[\aa]\aa  abcdef
\StrGobbleLeft{abcdef}{9}[\aa]\aa  ||
\StrGobbleLeft{éàèï}{2}[\aa]\aa  èï
\StrGobbleLeft{ÉÀÇ}{1}[\aa]\aa  ÀÇ
\StrGobbleLeft{aaaaa}{4}[\aa]\aa  a
\StrGobbleLeft{}{2}[\aa]\aa  ||

```

## La macro \StrGobbleRight

```

\StrGobbleRight{abcdef}{3}  abc
\StrGobbleRight{a b c d}{3}  |a b |
\StrGobbleRight{abcdef}{-3}  abcdef
\StrGobbleRight{abcdef}{9}  ||
\StrGobbleRight{éàèï}{2}  éà
\StrGobbleRight{ÉÀÇ}{1}  ÉÀ
\StrGobbleRight{aaaaa}{4}  a
\StrGobbleRight{}{2}  ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrGobbleRight{abcdef}{3}[\aa]\aa  abc
\StrGobbleRight{a b c d}{3}[\aa]\aa  |a b |
\StrGobbleRight{abcdef}{-3}[\aa]\aa  abcdef
\StrGobbleRight{abcdef}{9}[\aa]\aa  ||
\StrGobbleRight{éàèï}{2}[\aa]\aa  éà
\StrGobbleRight{ÉÀÇ}{1}[\aa]\aa  ÉÀ
\StrGobbleRight{aaaaa}{4}[\aa]\aa  a
\StrGobbleRight{}{2}[\aa]\aa  ||

```

## La macro \StrLeft

```

\StrLeft{abcdef}{3}  abc
\StrLeft{a b c d}{3}  |a b|
\StrLeft{abcdef}{-3}  ||
\StrLeft{abcdef}{9}  |abcdef|
\StrLeft{éàèï}{2}  éà
\StrLeft{ÉÀÇ}{1}  É

```

```

\StrLeft{aaaaa}{4}  aaaa
\StrLeft{}{2}      ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrLeft{abcdef}{3}[\aa]\aa  abc
\StrLeft{a b c d}{3}[\aa]\aa |a b|
\StrLeft{abcdef}{-3}[\aa]\aa ||
\StrLeft{abcdef}{9}[\aa]\aa  |abcdef|
\StrLeft{éàèï}{2}[\aa]\aa   éà
\StrLeft{ÉÂÇ}{1}[\aa]\aa    É
\StrLeft{aaaaa}{4}[\aa]\aa  aaaa
\StrLeft{}{2}[\aa]\aa      ||

```

## La macro \StrRight

```

\StrRight{abcdef}{3}  def
\StrRight{a b c d}{3} |c d|
\StrRight{abcdef}{-3} ||
\StrRight{abcdef}{9}  |abcdef|
\StrRight{éàèï}{2}    èï
\StrRight{ÉÂÇ}{1}     Ç
\StrRight{aaaaa}{4}   aaaa
\StrRight{}{2}        ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrRight{abcdef}{3}[\aa]\aa  def
\StrRight{a b c d}{3}[\aa]\aa |c d|
\StrRight{abcdef}{-3}[\aa]\aa ||
\StrRight{abcdef}{9}[\aa]\aa  |abcdef|
\StrRight{éàèï}{2}[\aa]\aa   èï
\StrRight{ÉÂÇ}{1}[\aa]\aa    Ç
\StrRight{aaaaa}{4}[\aa]\aa  aaaa
\StrRight{}{2}[\aa]\aa      ||

```

## la macro \StrChar

```

\StrChar{abcdef}{5}  e
\StrChar{a b c d}{4} ||
\StrChar{a b c d}{7} d
\StrChar{abcdef}{10} ||
\StrChar{abcdef}{-5} ||
\StrChar{}{3}        ||

```

Mêmes exemples avec l'argument optionnel :

```

\StrChar{abcdef}{5}[\aa]\aa  e
\StrChar{a b c d}{4}[\aa]\aa ||
\StrChar{a b c d}{7}[\aa]\aa d
\StrChar{abcdef}{10}[\aa]\aa ||
\StrChar{abcdef}{-5}[\aa]\aa ||
\StrChar{}{3}[\aa]\aa      ||

```

## La macro \StrCount

```

\StrCount{abcdef}{d}  1
\StrCount{a b c d}{ } 3
\StrCount{aaaaaa}{aa} 3
\StrCount{étéété}{é}   3
\StrCount{abcdef}{Z}   0
\StrCount{éàèï}{é}     1
\StrCount{ÉÂÇ}{Ç}      1
\StrCount{abcdef}{ }   0
\StrCount{}{a}          0
\StrCount{}{}           0

```

Mêmes exemples avec l'argument optionnel :

```

\StrCount{abcdef}{d}[\aa]\aa  1
\StrCount{a b c d}{ }[\aa]\aa  3
\StrCount{aaaaaa}{aa}[\aa]\aa  3

```



```

\StrCount{étété}{é}[\aa]\aa 3
\StrCount{abcdef}{Z}[\aa]\aa 0
\StrCount{éàèï}{é}[\aa]\aa 1
\StrCount{ÉÂÇ}{Ç}[\aa]\aa 1
\StrCount{abcdef}{ }[\aa]\aa 0
\StrCount{}{a}[\aa]\aa 0
\StrCount{}{}[\aa]\aa 0

```

## La macro \StrPosition

```

\StrPosition{abcdef}{c} 3
\StrPosition{abcdef}{Z} 0
\StrPosition{a b c d}{ } 2
\StrPosition[3]{a b c d}{ } 6
\StrPosition[8]{a b c d}{ } 0
\StrPosition{étété}{é} 1
\StrPosition[3]{étété}{é} 5
\StrPosition[5]{étété}{é} 0
\StrPosition{aaaaaa}{aa} 1
\StrPosition[2]{aaaaaa}{aa} 3
\StrPosition[3]{aaaaaa}{aa} 5
\StrPosition{éàèï}{è} 3
\StrPosition{ÉÂÇ}{Â} 2
\StrPosition{abcdef}{ } 0
\StrPosition{}{a} 0
\StrPosition{}{} 0

```

Mêmes exemples avec l'argument optionnel :

```

\StrPosition{abcdef}{c}[\aa]\aa 3
\StrPosition{abcdef}{Z}[\aa]\aa 0
\StrPosition{a b c d}{ }[\aa]\aa 2
\StrPosition[3]{a b c d}{ }[\aa]\aa 6
\StrPosition[8]{a b c d}{ }[\aa]\aa 0
\StrPosition{étété}{é}[\aa]\aa 1
\StrPosition[3]{étété}{é}[\aa]\aa 5
\StrPosition[5]{étété}{é}[\aa]\aa 0
\StrPosition{aaaaaa}{aa}[\aa]\aa 1
\StrPosition[2]{aaaaaa}{aa}[\aa]\aa 3
\StrPosition[3]{aaaaaa}{aa}[\aa]\aa 5
\StrPosition{éàèï}{è}[\aa]\aa 3
\StrPosition{ÉÂÇ}{Â}[\aa]\aa 2
\StrPosition{abcdef}{ }[\aa]\aa 0
\StrPosition{}{a}[\aa]\aa 0
\StrPosition{}{}[\aa]\aa 0

```

## La macro \StrCompare

La tolérance normale :

```

\StrCompare{abcdefghij}{abc} 0
\StrCompare{A}{A} 0
\StrCompare{éçà}{éçà} 0
\StrCompare{abcdef}{a bd} 2
\StrCompare{ }{ } 0
\StrCompare{}{abcd} 0
\StrCompare{abcd}{ } 0
\StrCompare{123456}{1234} 0
\StrCompare{a b c d}{a bcd} 4
\StrCompare{}{} 0
\StrCompare{eee}{eeee} 0
\StrCompare{eeee}{eee} 0
\StrCompare{totutu}{tututu} 2
\StrCompare{abcd}{abyz} 3

```

Mêmes exemples avec l'argument optionnel :

```

\StrCompare{abcdefghij}{abc}[\aa]\aa 0
\StrCompare{A}{A}[\aa]\aa 0
\StrCompare{éçà}{éçà}[\aa]\aa 0

```

```

\StrCompare{abcdef}{a bd}[\aa]\aa 2
\StrCompare{ }{ }[\aa]\aa 0
\StrCompare{}{abcd}[\aa]\aa 0
\StrCompare{abcd}{}[\aa]\aa 0
\StrCompare{123456}{1234}[\aa]\aa 0
\StrCompare{a b c d}{a bcd}[\aa]\aa 4
\StrCompare{}{}[\aa]\aa 0
\StrCompare{eee}{eeee}[\aa]\aa 0
\StrCompare{eeee}{eee}[\aa]\aa 0
\StrCompare{totutu}{tututu}[\aa]\aa 2
\StrCompare{abcd}{abyz}[\aa]\aa 3

```

La tolérance stricte :

```

\StrCompare{abcdefghij}{abc} 4
\StrCompare{A}{A} 0
\StrCompare{éçà}{éçà} 0
\StrCompare{abcdef}{a bd} 2
\StrCompare{ }{ } 0
\StrCompare{}{abcd} 1
\StrCompare{abcd}{} 1
\StrCompare{123456}{1234} 5
\StrCompare{a b c d}{a bcd} 4
\StrCompare{}{} 0
\StrCompare{eee}{eeee} 4
\StrCompare{eeee}{eee} 4
\StrCompare{totutu}{tututu} 2
\StrCompare{abcd}{abyz} 3

```

Mêmes exemples avec l'argument optionnel :

```

\StrCompare{abcdefghij}{abc}[\aa]\aa 4
\StrCompare{A}{A}[\aa]\aa 0
\StrCompare{éçà}{éçà}[\aa]\aa 0
\StrCompare{abcdef}{a bd}[\aa]\aa 2
\StrCompare{ }{ }[\aa]\aa 0
\StrCompare{}{abcd}[\aa]\aa 1
\StrCompare{abcd}{}[\aa]\aa 1
\StrCompare{123456}{1234}[\aa]\aa 5
\StrCompare{a b c d}{a bcd}[\aa]\aa 4
\StrCompare{}{}[\aa]\aa 0
\StrCompare{eee}{eeee}[\aa]\aa 4
\StrCompare{eeee}{eee}[\aa]\aa 4
\StrCompare{totutu}{tututu}[\aa]\aa 2
\StrCompare{abcd}{abyz}[\aa]\aa 3

```

## Le mode \noexpandarg

---

Dans toute la suite sauf si c'est précisé, la commande \noexpandarg est activée.

### Le test \IfSubStr

```

\IfSubStr{1$2$\a{34}\bc5}{2}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{34}{vrai}{faux} faux
\IfSubStr{1$2$\a{34}\bc5}{{34}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{b}}{vrai}{faux} faux
\IfSubStr{1$2$\a{34}\bc5}{{bc}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc5}}{vrai}{faux} vrai
\IfSubStr{1$2$\a{34}\bc5}{{bc{5}}}{vrai}{faux} faux
\IfSubStr[1]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[2]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} vrai
\IfSubStr[3]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} faux
\IfSubStr[4]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux} faux

```

	<code>\exploregroups</code>	
<code>\IfSubStr{1\$2\$\a{34}\bc5}{2}{vrai}{faux}</code>		vrai
<code>\IfSubStr{1\$2\$\a{34}\bc5}{34}{vrai}{faux}</code>		vrai
<code>\IfSubStr{1\$2\$\a{34}\bc5}{{34}}{vrai}{faux}</code>		vrai
<code>\IfSubStr{1\$2\$\a{34}\bc5}{{b}}{vrai}{faux}</code>		faux
<code>\IfSubStr{1\$2\$\a{34}\bc5}{{bc}}{vrai}{faux}</code>		vrai
<code>\IfSubStr{1\$2\$\a{34}\bc5}{{bc5}}{vrai}{faux}</code>		vrai
<code>\IfSubStr{1\$2\$\a{34}\bc5}{{bc{5}}}{vrai}{faux}</code>		faux
<code>\IfSubStr[1]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux}</code>		vrai
<code>\IfSubStr[2]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux}</code>		vrai
<code>\IfSubStr[3]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux}</code>		vrai
<code>\IfSubStr[4]{\a1{\a1{\a1}\a2}\a3}{{a}}{vrai}{faux}</code>		vrai

## Le test `\IfBeginWith`

Les tests doivent donner des résultats identiques ci-dessous puisque `\IfBeginWith` est indifférent au mode d'exploration des groupes !

	<code>\noexploregroups</code>	
<code>\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{\a}123\b456}{{\a}}{vrai}{faux}</code>		vrai
<code>\IfBeginWith{{\a1}\b\c\d}{{a}}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{12}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{1}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{{1}2}{vrai}{faux}</code>		vrai
	<code>\exploregroups</code>	
<code>\IfBeginWith{{\a}123\b456}{{a}}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{\a}123\b456}{{\a}}{vrai}{faux}</code>		vrai
<code>\IfBeginWith{{\a1}\b\c\d}{{a}}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{12}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{1}{vrai}{faux}</code>		faux
<code>\IfBeginWith{{1}23456}{{1}2}{vrai}{faux}</code>		vrai

## Le test `\IfEndWith`

Les tests doivent donner des résultats identiques ci-dessous puisque `\IfEndWith` est indifférent au mode d'exploration des groupes !

	<code>\noexploregroups</code>	
<code>\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux}</code>		faux
<code>\IfEndWith{\a1\b2{\c3}}{{\c3}}{vrai}{faux}</code>		vrai
<code>\IfEndWith{\a1\b2{\c3}}{3}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{56}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{6}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{5{6}}{vrai}{faux}</code>		vrai
	<code>\exploregroups</code>	
<code>\IfEndWith{\a1\b2{\c3}}{\c3}{vrai}{faux}</code>		faux
<code>\IfEndWith{\a1\b2{\c3}}{{\c3}}{vrai}{faux}</code>		vrai
<code>\IfEndWith{\a1\b2{\c3}}{3}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{56}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{6}{vrai}{faux}</code>		faux
<code>\IfEndWith{12345{6}}{5{6}}{vrai}{faux}</code>		vrai

## Le test `\IfSubStrBefore`

	<code>\noexploregroups</code>	
<code>\IfSubStrBefore[1,1]{\a1\a2\a3\b1\b2\b3}{2}{{b}}{vrai}{faux}</code>		vrai
<code>\IfSubStrBefore[2,1]{\a1\a2\a3\b1\b2\b3}{2}{{b}}{vrai}{faux}</code>		faux
<code>\IfSubStrBefore[2,3]{\a1\a2\a3\b1\b2\b3}{{a}}{{b}}{vrai}{faux}</code>		vrai
<code>\IfSubStrBefore[1,1]{\a1{\a2\a3\b1}\b2\b3}{2}{{b}}{vrai}{faux}</code>		faux
<code>\IfSubStrBefore[1,2]{\a1{\a2\a3\b1}\b2\b3}{3}{{b}}{vrai}{faux}</code>		faux
	<code>\exploregroups</code>	
<code>\IfSubStrBefore[1,1]{\a1\a2\a3\b1\b2\b3}{2}{{b}}{vrai}{faux}</code>		vrai
<code>\IfSubStrBefore[2,1]{\a1\a2\a3\b1\b2\b3}{2}{{b}}{vrai}{faux}</code>		faux
<code>\IfSubStrBefore[2,3]{\a1\a2\a3\b1\b2\b3}{{a}}{{b}}{vrai}{faux}</code>		vrai
<code>\IfSubStrBefore[1,1]{\a1{\a2\a3\b1}\b2\b3}{2}{{b}}{vrai}{faux}</code>		vrai
<code>\IfSubStrBefore[1,2]{\a1{\a2\a3\b1}\b2\b3}{3}{{b}}{vrai}{faux}</code>		vrai

## Le test `\IfStrBehind`

```

\noexploregroups
\IfSubStrBehind[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBehind[3,1]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1\a2\a3\b1\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[2,1]{\a1{\a2\a3\b1}\b2\b3}{\b}{3}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} vrai
\exploregroups
\IfSubStrBehind[2,1]{\a1\a2\a3\b1\b2\b3}{2}{\b}{vrai}{faux} vrai
\IfSubStrBehind[3,1]{\a1\a2\a3\b1\b2\b3}{\a}{\b}{vrai}{faux} faux
\IfSubStrBehind[1,1]{\a1\a2\a3\b1\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[2,1]{\a1{\a2\a3\b1}\b2\b3}{\b}{3}{vrai}{faux} vrai
\IfSubStrBehind[1,1]{\a1{\a2\a3\b1}\b2\b3}{3}{\b}{vrai}{faux} faux

```

## Le test \IfInteger

Dans les exemples ci-dessous, on examine la différence de comportement de la macro \IfInteger selon les modes de développement des arguments.

```

\def\nbA{-12}\def\nbB{498}
\def\nbAA{\nbA}\def\nbBB{\nbB}
\fullexpandarg
\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux
\expandarg
\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux
\noexpandarg
\IfInteger{\nbA}{vrai}{faux} faux
\IfInteger{\nbA5\nbA}{vrai}{faux} faux
\IfInteger{\nbA6\nbB}{vrai}{faux} faux
\IfInteger{\nbAA7\nbBB}{vrai}{faux} faux

```

## Le test \IfDecimal

Dans les exemples ci-dessous, on examine la différence de comportement de la macro \IfDecimal selon les modes de développement des arguments.

```

\def\nbA{-12}\def\nbB{498}
\def\nbAA{\nbA}\def\nbBB{\nbB}
\fullexpandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux
\expandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux
\noexpandarg
\IfDecimal{\nbA,\nbB}{vrai}{faux} faux
\IfDecimal{\nbAA.\nbB}{vrai}{faux} faux
\IfDecimal{\nbB,777}{vrai}{faux} faux
\IfDecimal{3\nbB,777}{vrai}{faux} faux
\IfDecimal{\nbB,\nbB}{vrai}{faux} faux

```

## La macro \StrBefore

```

\noexploregroups
\StrBefore[2]{1\a2\a3{4\a5{6\a7}8\a}9\a0}{\a}{\cmd}
\detokenize\expandafter{\cmd} 1\a 2
\StrBefore[3]{1\a2\a3{4\a5{6\a7}8\a}9\a0}{\a}{\cmd}

```

```

\detokenize\expandafter{\cmd} 1\ a 2\ a 3{4\ a 5{6\ a 7}8\ a }9
\StrBefore[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBefore[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBefore[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\exploregroups
\StrBefore[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 1\ a 2
\StrBefore[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 4
\StrBefore[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 6
\StrBefore[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 4\ a 5{6\ a 7}8
\StrBefore[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 1\ a 2\ a 3{4\ a 5{6\ a 7}8\ a }9

```

## La macro \StrBehind

```

\noexploregroups
\StrBehind[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 3{4\ a 5{6\ a 7}8\ a }9\ a 0
\StrBehind[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 0
\StrBehind[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBehind[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBehind[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\exploregroups
\StrBehind[2]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 3{4\ a 5{6\ a 7}8\ a }9\ a 0
\StrBehind[3]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 5{6\ a 7}8\ a
\StrBehind[4]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 7
\StrBehind[5]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBehind[6]{1\ a2\ a3{4\ a5{6\ a7}8\ a}9\ a0}{\ a}\cmd
\detokenize\expandafter{\cmd} 0

```

## La macro \StrBetween

La commande \StrBetween opère en mode \noexploregroups, quelque soit le mode d'exploration en cours.

```

\StrBetween[1,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{2}{\ a}\cmd
\detokenize\expandafter{\cmd} {3\ a 4}5
\StrBetween[2,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{\ a}{\ a}\cmd
\detokenize\expandafter{\cmd} 2{3\ a 4}5
\StrBetween[1,3]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{3}{\ a}\cmd
\detokenize\expandafter{\cmd}
\StrBetween[2,4]{\ a1\ a2{3\ a4}5\ a6{7\ a8}9\ a0}{\ a}{\ a}\cmd
\detokenize\expandafter{\cmd} 2{3\ a 4}5\ a 6{7\ a 8}9

```

## La macro \StrSubstitute

```

\noexploregroups
\StrSubstitute{\ a1{2\ a{3\ a}4\ a}\ a5\ a}{\ a}{\ X}\cmd
\detokenize\expandafter{\cmd} \ X 1{2\ a {3\ a }4\ a }\ X 5\ X
\StrSubstitute[2]{\ a1{2\ a{3\ a}4\ a}\ a5\ a}{\ a}{\ X}\cmd

```

<code>\detokenize\expandafter{\cmd}</code>	<code>\X 1{2\ a {3\ a }4\ a } \X 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{2}{X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{{3\ a}}{XXX}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{3\ a}{XXX}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrSubstitute{a1{b1\bgroup c1}\egroup d1}{1}{X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>aX{b1\bgroup c1}\egroup dX</code>
<code>\noexpand\exploregroups</code>	
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}{\ X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\X 1{2\ X {3\ X }4\ X } \X 5\ X</code>
<code>\StrSubstitute[2]{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}{\ X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\X 1{2\ X {3\ a }4\ a } \ a 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{2}{X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{X\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{{3\ a}}{XXX}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a XXX4\ a } \ a 5\ a</code>
<code>\StrSubstitute{\a1{2\ a{3\ a}4\ a}\a5\ a}{3\ a}{XXX}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {XXX}4\ a } \ a 5\ a</code>
<code>\StrSubstitute{a1{b1\bgroup c1}\egroup d1}{1}{X}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>aX{bX\bgroup cX}\egroup dX</code>

## La macro `\StrDel`

<code>\noexpand\exploregroups</code>	
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>1{2\ a {3\ a }4\ a } 5</code>
<code>\StrDel[2]{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>1{2\ a {3\ a }4\ a } 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{2}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{{3\ a}}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{3\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\noexpand\exploregroups</code>	
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>1{2{3}4}5</code>
<code>\StrDel[2]{\a1{2\ a{3\ a}4\ a}\a5\ a}{\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>1{2{3\ a }4\ a } \ a 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{2}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{\ a {3\ a }4\ a } \ a 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{{3\ a}}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a 4\ a } \ a 5\ a</code>
<code>\StrDel{\a1{2\ a{3\ a}4\ a}\a5\ a}{3\ a}[\cmd]</code>	
<code>\detokenize\expandafter{\cmd}</code>	<code>\ a 1{2\ a { }4\ a } \ a 5\ a</code>

## La macro `\StrLen`

<code>\noexpand\exploregroups</code>	
<code>\StrLen{a1{a2}{\ a\ b}{a3}a4}</code>	7
<code>\noexpand\exploregroups</code>	
<code>\StrLen{a1{a2}{\ a\ b}{a3}a4}</code>	10

## la macro `\StrSplit`

<code>\noexpand\exploregroups</code>	
<code>\StrSplit{\a{\ b{\ c\ d}\ e}\ f\ g}{2}\ xx\ yy</code>	
<code>\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\#</code>	<code>\# \ a { \ b { \ c \ d } \ e } \# \# \ f \ g \#</code>
<code>\StrSplit{\a{\ b{\ c\ d}\ e}\ f\ g}{3}\ xx\ yy</code>	
<code>\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\#</code>	<code>\# \ a { \ b { \ c \ d } \ e } \ f \# \# \ g \#</code>
<code>\noexpand\exploregroups</code>	

```

\StrSplit{\a{\b{\c\d}\e}\f\g}{2}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\b # #\{c d\}e #
\StrSplit{\a{\b{\c\d}\e}\f\g}{3}\xx\yy
\#\detokenize\expandafter{\xx}\#\quad\#\detokenize\expandafter{\yy}\# #\c # #\d #

```

## la macro \StrMid

La commande \StrMid opère en mode \noexploregroups, quelque soit le mode d'exploration en cours.

```

\StrMid{\a\b{\c\d}\e}\f\g\h}{2}{6}[\cmd]
\detokenize\expandafter{\cmd} \b {\c d }e \f \g
\StrMid{\a\b{\c\d}\e}\f\g\h}{3}{4}[\cmd]
\detokenize\expandafter{\cmd} {\c d }e

```

## La macro \StrGobbleLeft

```

\noexploregroups
\StrGobbleLeft{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \f
\exploregroups
\StrGobbleLeft{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \d \e

```

## La macro \StrGobbleRight

```

\noexploregroups
\StrGobbleRight{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \a
\exploregroups
\StrGobbleRight{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \c

```

## La macro \StrLeft

```

\noexploregroups
\StrLeft{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \a \b {\c d \e }
\exploregroups
\StrLeft{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \c

```

## La macro \StrRight

```

\noexploregroups
\StrRight{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \b {\c d \e } \f
\exploregroups
\StrRight{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \d \e

```

## la macro \StrChar

```

\noexploregroups
\StrChar{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} {\c d \e }
\exploregroups
\StrChar{\a\b{\c\d}\e}\f}{3}[\cmd]
\detokenize\expandafter{\cmd} \c

```

## La macro \StrCount

```

\noexploregroups
\StrCount{\a1{\a2{\a3\a4}\a5}\a6\a7}{\a} 3
\StrCount{\a1{\a2{\a3\a4}\a5}\a6\a7}{2} 0
\exploregroups
\StrCount{\a1{\a2{\a3\a4}\a5}\a6\a7}{\a} 7
\StrCount{\a1{\a2{\a3\a4}\a5}\a6\a7}{2} 1

```

## La macro \StrPosition

```

\noexploregroups
\StrPosition[3]{\a0\ a1{\a{2\ a3}4}\a5\ a6}{\a} 6
\StrPosition[4]{\a0\ a1{\a{3\ a4}5}\a6\ a7}{\a} 8
\StrPosition[1]{\a0\ a1{\a{2\ a3}4}\a5\ a6}{2} 0
\exploregroups
\StrPosition[3]{\a0\ a1{\a{2\ a3}4}\a5\ a6}{\a} 1
\StrPosition[4]{\a0\ a1{\a{2\ a3}4}\a5\ a6}{\a} 2
\StrPosition[1]{\a0\ a1{\a{2\ a3}4}\a5\ a6}{2} 1

```

## La macro \StrCompare

La commande \StrCompare n'est pas affectée par le mode d'exploration.

```

\comparenormal
\StrCompare{\a{\b1}\c2}{\a\b1\c2} 2
\StrCompare{{1\ a2}3}{{1\ a2}3} 0
\StrCompare{{1\ a2}3}{1\ a23} 1
\StrCompare{\a{\b\c}}{\a{\b\c}\d} 0
\StrCompare{\a}\b}{\a\b} 1
\comparestrict
\StrCompare{\a{\b1}\c2}{\a\b1\c2} 2
\StrCompare{{1\ a2}3}{{1\ a2}3} 0
\StrCompare{{1\ a2}3}{1\ a23} 1
\StrCompare{\a{\b\c}}{\a{\b\c}\d} 3
\StrCompare{\a}\b}{\a\b} 1

```

## La macro \StrRemoveBraces

```

\noexploregroups
\StrRemoveBraces{\a1{\b2{\c3{\d4}}}\e5}[\cmd]
\detokenize\expandafter{\cmd} \a 1\b 2{\c 3{\d 4}}\e 5
\exploregroups
\StrRemoveBraces{\a1{\b2{\c3{\d4}}}\e5}[\cmd]
\detokenize\expandafter{\cmd} \a 1\b 2\c 3\d 4\e 5

```