

# Syntax changes in L<sup>A</sup>T<sub>E</sub>X3 functions <sup>\*</sup>

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Released 2008/02/07

This file lists functions whose syntax has changed after August 2011, with an approximate date.

## 1 August 2011

- `\tl_if_single:n(TF)` recognized any non-zero number of explicit spaces as  $\langle true \rangle$ , and did not ignore trailing spaces. Now it is  $\langle true \rangle$  for

$\langle optional\ spaces \rangle \langle normal\ token\ or\ brace\ group \rangle \langle optional\ spaces \rangle$ .

- `\tl_reverse:n` stripped outer braces and lost unprotected spaces. Now it keeps spaces, leaves unbraced single tokens unbraced, and braced groups braced.
- `\tl_trim_spaces:n` only removed one leading and trailing space. Now removes recursively. Also, on the left it used to strip implicit and explicit spaces with any character code. Now it strips only explicit space characters (32, 10).

## 2 September 2011

- `clist` functions which receive an `n`-type comma list argument now trim spaces from each item in the argument.

## 3 June 2012

- Access to list functions now indexes from 1, not from 0. This applies to multiple choices in the `l3keys` module and the `\clist_item:Nn`, `\seq_item:Nn` and `\tl_item:Nn` functions.
- `\tl_trim_spaces:n` now requires a variable number of expansions to fully expand, rather than exactly two. Of course, `x`-type expansion still correctly evaluates this function.

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<sup>\*</sup>This file describes v7019, last revised 2017/03/18.

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## 4 July 2012

- The `\tl_if_head_eq_meaning:nN`, `\tl_if_head_eq_catcode:nN` and `\tl_if_head_eq_charcode:nN` conditionals now never match when their first argument is empty.

## 5 August 2012

- `\lua_now:x` is now a standard **x**-type expansion of `\lua_now:n`, which does no expansion. Engine-level expansion is moved to `\lua_now_x:n`, reflecting the fact that this is non-standard in the same way as for example `\str_if_eq_x:nn(TF)`.