

# The **latex-lab-text** package

## Changes and additions to the kernel related to the tagging of various small text commands

L<sup>A</sup>T<sub>E</sub>X Project\*

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### Abstract

## 1 Introduction

This module contains small changes to improve the tagging of (inline) text commands.

While the tagging of the L<sup>A</sup>T<sub>E</sub>X logo is quite straightforward, tagging of `\emph` as **EM** can have unwanted side-effect as both tags are inline tags and so not every inner structure is allowed. Probably both commands will need an optional argument or a starred variant which suppress the tagging.

## 2 Implementation

```
1 <*package>
2 <@@=tag>

3 \ProvidesExplPackage {latex-lab-testphase-text} {\ltlabtextdate} {\ltlabtextversion}
4 {Code related to the tagging of various small text commands}
```

### 2.1 The L<sup>A</sup>T<sub>E</sub>X and T<sub>E</sub>X logo

This uses the generic hooks, so that it catches also other definitions. For `\LaTeX` we stop tagging to avoid that the inner `\TeX` leads to a double tagging.

```
5 \AddToHook{cmd/LaTeX/before}
6 {
7   \mode_leave_vertical:
8   \UseTaggingSocket{inline/begin}
9   {tag=\UseStructureName{span},actualtext=LaTeX,phoneme=['la:tɛx]}
10  \tag_suspend:n{\LaTeX}
11 }
12 \AddToHook{cmd/LaTeX/after}
13 {
14   \tag_resume:n{\LaTeX}
15   \UseTaggingSocket{inline/end}
```

---

\*Initial implementation done by Ulrike Fischer

```

16 }
17 \AddToHook{cmd/TeX/before}
18 {
19   \mode_leave_vertical:
20   \UseTaggingSocket{inline/begin}
21     {tag=\UseStructureName{span},actualtext=TeX}
22 }
23 \AddToHook{cmd/TeX/after}
24 {
25   \UseTaggingSocket{inline/end}
26 }

```

## 2.2 Emphasizing

We tag `\emph` but leave commands like `\textbf` alone, as it is not clear if they always have a semantic meaning.

```

27 \AddToHook{cmd/emph/before}
28 {
29   \mode_leave_vertical:
30   \UseTaggingSocket{inline/begin}
31     {tag=\UseStructureName{text/emph}}
32 }
33
34 \AddToHook{cmd/emph/after}
35 {
36   \UseTaggingSocket{inline/end}
37 }

```

## 2.3 `\textsuperscript` and `\textsubscript`

```

38 \sys_if_engine_luatex:TF
39 {
40   \cs_new:Npn \__tag_space_ignore:n #1 {\tag_spacechar_off:#1\tag_spacechar_on:}
41 }
42 {
43   \cs_set_eq:NN \__tag_space_ignore:n \use:n
44 }
45 \protected\def\@textsuperscript#1%
46 {%
47   \check@mathfonts
48   \leavevmode
49   \begingroup
50   \UseTaggingSocket{inline/begin}{tag=\UseStructureName{span},attribute-class=sup}
51   \sbox\z@{\fontsize\sf@size\sf@size#1}%
52   \raise\dimexpr\textsuperscript@offset\relax\box\z@
53   \UseTaggingSocket{inline/end}
54   \__tag_space_ignore:n{\textsuperscript@space}
55   \endgroup
56 }
57 \protected\def\@textsubscript#1%
58 {%
59   \check@mathfonts
60   \leavevmode

```

```

61 \begingroup
62 \UseTaggingSocket{inline/begin}{tag=\UseStructureName{span},attribute-class=sub}
63 \sbox\z@{\fontsize\sf@size\sf@size#1}%
64 \lower\dimexpr\textsubscript@offset\relax\box\z@
65 \UseTaggingSocket{inline/end}
66 \__tag_space_ignore:n{\textsuperscript@space}
67 \endgroup
68 }

```

## 2.4 `\mbox`

When used in math and when `luamml` is active `\mbox` has to be correctly annotated. For this we add a socket that `luamml` can activate. We test for the socket until 2025-06-01.

```

69 \DeclareRobustCommand\mbox[1]
70 {
71   \leavevmode
72   \tag_socket_use:nnn {math/luamml/hbox}
73   {}{ \hbox{#1} }
74 }

```

And the same for `\makebox`

```

75 \long\def\@imakebox[#1][#2]#3{%
76   \tag_socket_use:nnn {math/luamml/hbox}{}
77   {
78     \@begin@tempboxa\hbox{#3}%
79     \setlength\@tempdima{#1}%      support calc
80     \hb@xt@\@tempdima{%
81       \expandafter\ifx\csname bm@#2\endcsname\relax
82       \bm@c
83       \@latex@warning{Unexpected~alignment~#2}%
84     \else
85       \csname bm@#2\endcsname
86     \fi}%
87     \@end@tempboxa
88   }}

```

## 2.5 phantom commands

In text mode we do not want the content of a phantom command to create a structure, so we suspend tagging TODO: consider if it makes sense to set measuring to true instead. `\mathsm@sh` is redefined in `latex-lab-math`.

`\makeph@nt`

```

89 \def\makeph@nt#1{%
90   \setbox\z@\hbox
91   {\SuspendTagging{\makeph@nt}%
92    \color@begingroup#1\color@endgroup\ResumeTagging{\makeph@nt}}\finph@nt}

```

*(End of definition for `\makeph@nt`.)*

`\@kernel@mathph@nt`

`\mathph@nt`

```

93 \def\@kernel@mathph@nt#1#2{%
94   \setbox\z@\hbox{\SuspendTagging{\mathph@nt}$\m@th#1{#2}$\ResumeTagging{\mathph@nt}}\finph@nt}

```

```

95 \def\mathph@nt#1#2
96 {
97   \setbox \z@ = \hbox {
98     $
99     \m@th
100    #1
101    {
102 % nested phantoms should not be processed by luamml
103     \let\mathph@nt\@kernel@mathph@nt
104     #2
105   }
106   \UseTaggingSocket{math/luamml/save/nNn}{\mathphant} #1 {\mphantom}}
107   $
108 }
109 \UseTaggingSocket{math/luamml/finph@nt}{\finph@nt}
110 }

```

*(End of definition for \@kernel@mathph@nt and \mathph@nt.)*

## 2.6 The \verb command

```

111 \def\verb{\relax\ifmmode\hbox\else\leavevmode\null\fi
112   \bgroup
113   \UseTaggingSocket{inline/begin}{tag=\UseStructureName{text/verb}}%
114   \verb@eol@error \let\do\@makeoother \dospecials
115   \verbatim@font\@noligs
116   \language\l@nohyphenation
117   \@ifstar\@sverb\@verb}
118 \def\verb@egroup{\global\let\verb@balance@group\@empty\UseTaggingSocket{inline/end}\egroup}
119 </package>

```