

# 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<sup>\*</sup>

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### Abstract

## 1 Introduction

The followings 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** and `\textbf` as **Strong** 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   \tag_mc_end_push:
9   \tag_struct_begin:n{tag=Span,actualtext=LaTeX,phoneme=['la:tɛx]}
10  \tag_mc_begin:n{}
11  \tag_suspend:n{LaTeX}
12 }
13 \AddToHook{cmd/LaTeX/after}
14 {
15   \tag_resume:n{LaTeX}
```

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<sup>\*</sup>Initial implementation done by Ulrike Fischer

```

16   \tag_mc_end:
17   \tag_struct_end:
18   \tag_mc_begin_pop:n{ }
19 }
20 \AddToHook{cmd/TeX/before}
21 {
22   \mode_leave_vertical:
23   \tag_mc_end_push:
24   \tag_struct_begin:n{tag=Span,actualtext=TeX}
25   \tag_mc_begin:n{ }
26 }
27 \AddToHook{cmd/TeX/after}
28 {
29   \tag_mc_end:
30   \tag_struct_end:
31   \tag_mc_begin_pop:n{ }
32 }

```

## 2.2 Emphasizing

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

```

33 \AddToHook{cmd/emph/before}
34 {
35   \mode_leave_vertical:
36   \tag_mc_end_push:
37   \tag_struct_begin:n{tag=Em}
38   \tag_mc_begin:n{ }
39 }
40
41 \AddToHook{cmd/emph/after}
42 {
43   \tag_mc_end:
44   \tag_struct_end:
45   \tag_mc_begin_pop:n{ }
46 }

```

## 2.3 csmbox

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.

```

47 \DeclareRobustCommand\mbox[1]
48 {
49   \leavevmode
50   \tag_socket_use:nnn {math/luamml/hbox}
51   {}{ \hbox{#1} }
52 }

```

And the same for `\makebox`

```

53 \long\def\@imakebox[#1][#2]#3{%
54   \tag_socket_use:nnn {math/luamml/hbox}{ }
55   {

```

```

56 \begin@tempboxa\hbox{#3}%
57 \setlength\@tempdima{#1}%      support calc
58 \hb@xt@\@tempdima{%
59 \expandafter\ifx\csname bm@#2\endcsname\relax
60 \bm@c
61 \latex@warning{Unexpected-alignment-#2}%
62 \else
63 \csname bm@#2\endcsname
64 \fi}%
65 \end@tempboxa
66 }}

```

## 2.4 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`

```

67 \def\makeph@nt#1{%
68 \setbox\z@\hbox
69 {\SuspendTagging{\makeph@nt}%
70 \color@begingroup#1\color@endgroup\ResumeTagging{\makeph@nt}}\finph@nt}

```

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

`\@kernel@mathph@nt`

`\mathph@nt`

```

71 \def\@kernel@mathph@nt#1#2{%
72 \setbox\z@\hbox{\SuspendTagging{\mathph@nt}$\m@th#1{#2}$\ResumeTagging{\mathph@nt}}\finph@nt}
73 \def\mathph@nt#1#2
74 {
75 \setbox \z@ = \hbox {
76 $
77 \m@th
78 #1
79 {
80 % nested phantoms should not be processed by luamml
81 \let\mathph@nt\@kernel@mathph@nt
82 #2
83 }
84 \UseTaggingSocket{math/luamml/save/nNn}{\mathphant} #1 {\mphantom}}
85 $
86 }
87 \UseTaggingSocket{math/luamml/finph@nt}{\finph@nt}
88 }

```

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

89 `\</package>`

90 `\<*\latex-lab>`

91 `\ProvidesFile{text-latex-lab-testphase.ltx}`

```
92      [\ltxlabtextdate\space v\ltxlabtextversion\space  
93      code related to the tagging of various small text commands]  
94  
95 \RequirePackage{latex-lab-testphase-text}  
96  
97 \</latex-lab>
```