

# 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

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:tex]}
10  \tag_mc_begin:n{}
11  \tag_suspend:n{LaTeX}
12 }
13 \AddToHook{cmd/LaTeX/after}
14 {
15   \tag_resume:n{LaTeX}
```

---

\*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 `[\lftlabtextdate\space v\lftlabtextversion\space`

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