The **latex-lab-text** package
Changes and additions to the kernel related to the tagging of various small text commands

LaTeX 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 LaTeX 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 LaTeX and TeX 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}
```

---

[*]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 annoted. 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           [\ltlabtextdate\space v\ltlabtextversion\space
93            code related to the tagging of various small text commands]
94
95 \RequirePackage{latex-lab-testphase-text}
96
97 ⟨/latex-lab⟩
```