

The `latex-lab-text` package

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

L^AT_EX 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^AT_EX 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^AT_EX and T_EX 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}
16   \tag_mc_end:
```

^{*}Initial implementation done by Ulrike Fischer

```

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\@makebox[#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\cname bm@#2\endcsname\relax
60     \bm@c
61     \@latex@warning{Unexpected-alignment~#2}%
62     \else
63     \cname 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 `[\l\tlabtextdate\space v\l\tlabtextversion\space`

93 `code related to the tagging of various small text commands]`

94

95 `\RequirePackage{latex-lab-testphase-text}`

96

97 `\</latex-lab>`