

The `latex-lab-mathtools` code^{*}

L^AT_EX Project

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Abstract

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1 Introduction

This file implements adaption to the `mathtools` package needed for the tagging project.

2 The Implementation

¹ `<@@=math>`

² `<*kernel>`

2.1 File declaration

³ `\ProvidesFile{latex-lab-mathtools.ltx}`

⁴ `[\ltlabmathtoolsdate\space \ltlabmathtoolsversion\space mathtools adaption]`

*

2.2 \shortintertext

Similar to the `\intertext` command from `amsmath`, `\shortintertext` errors with active tagging as it is processed twice which leads to duplicated structures. The fix is similar but is complicated as `mathtools` defines two version (and an additional `\intertext` version) and package options to switch between the variants.

At first we redefine all the internal commands

```

5 \ExplSyntaxOn
6 \tl_new:N\l__math_mathtools_init_tl
7 \cs_if_eq:NNTF\intertext@ \MT_intertext:
8 {
9   \tl_set:Nn \l__math_mathtools_init_tl {\MT_orig_intertext_false:}
10 }
11 {
12   \tl_set:Nn \l__math_mathtools_init_tl {\MT_orig_intertext_true:}
13 }

14 \cs_if_eq:NNTF\shortintertext@ \MT_shortintertext:n
15 {
16   \tl_put_right:Nn \l__math_mathtools_init_tl
17     {\MT_orig_shortintertext_false:}
18 }
19 {
20   \tl_put_right:Nn \l__math_mathtools_init_tl
21     {\MT_orig_shortintertext_true:}
22 }

23 <@@=>

24 \def\MT_intertext: {%
25   \def\intertext##1{%
26     \ifvmode\else\\\@empty\fi
27     \noalign{%
28       \penalty\postdisplaypenalty\vskip\belowdisplayskip
29       \vskip-\lineskiplimit % CCS
30       \vskip\normallineskiplimit % CCS
31       \vskip\l_MT_above_intertext_sep
32       \vbox{%

```

Stop tagging when measuring:

```

33   \ifmeasuring@\tag_suspend:n{\measuring}\fi
34   \normalbaselines
35   \ifdim
36     \ifdim\@totalleftmargin=\z@
37       \linewidth
38     \else
39       -\maxdimen
40     \fi
41   =\columnwidth
42   \else \parshape\@ne \@totalleftmargin \linewidth
43   \fi

```

End the previous mc:

```

44   \UseTaggingSocket{math/intertext}{}

```

```

45     {\noindent\ignorespaces##1\par}
46   }%
47   \penalty\predisplaypenalty\vskip\abovedisplayskip%
48   \vskip-\lineskiplimit      % CCS
49   \vskip\normallineskiplimit % CCS
50   \vskip\l_MT_below_intertext_sep
51 }%
52 }%
53 \MH_let:NwN \shortintertext \shortintertext@
54 }

55 \def\MT_orig_shortintertext:n #1{%
56   \ifvmode\else\\@empty\fi
57   \noalign{%
58     \penalty\postdisplaypenalty\vskip\abovedisplayshortskip
59     \vbox{%
60       \ifmeasuring@\tag_suspend:n{\measuring}\fi
61       \normalbaselines
62       \MH_if_dim:w
63       \MH_if_dim:w \@totalleftmargin=\z@
64       \linewidth
65       \MH_else:
66       -\maxdimen
67       \MH_fi:
68       =\columnwidth
69       \MH_else:
70       \parshape\@ne \@totalleftmargin \linewidth
71       \MH_fi:

72       \UseTaggingSocket{math/intertext}{\}
73       {\noindent\ignorespaces#1\par}
74     }
75     \penalty\predisplaypenalty\vskip\abovedisplayshortskip%
76   }%
77 }

78 \def\MT_shortintertext:n #1{%
79   \ifvmode\else\\@empty\fi
80   \noalign{%
81     \penalty\postdisplaypenalty\vskip\abovedisplayshortskip
82     \vskip-\lineskiplimit
83     \vskip\normallineskiplimit
84     \vskip\l_MT_above_shortintertext_sep
85     \vbox{%
86       \ifmeasuring@\tag_suspend:n{\measuring}\fi
87       \normalbaselines
88       \MH_if_dim:w
89       \MH_if_dim:w \@totalleftmargin=\z@
90       \linewidth
91       \MH_else:
92       -\maxdimen
93       \MH_fi:
94       =\columnwidth
95       \MH_else:
96       \parshape\@ne \@totalleftmargin \linewidth

```

```

97      \MH_fi:

98      \UseTaggingSocket{math/intertext}{\}
99      {\noindent\ignorespaces#1\par}
100    }%
101    \penalty\predisplaypenalty\vskip\abovedisplayshortskip%
102    \vskip-\lineskiplimit
103    \vskip\normallineskiplimit
104    \vskip\l_MT_below_shortintertext_sep
105  }%
106 }

```

see <https://github.com/latex3/tagging-project/issues/734>. The multlined environment still creates a few unneeded structure, perhaps triggered by empty tags.

```

107    \renewcommand*\MT_mult_internal:n [1]{
108      \MH_if_boolean:nF {outer_mult}{\alignedspace@left} %<-- requires amsmath 2016/11/05
109      \MT_next:
110      \bgroup
111      \Let@
112      \def\l_MT_multline_lastline_fint{0 }
113      \chardef\dspbrk@context\@ne \restore@math@cr
114      \MH_let:NwN \math@cr@@\MT_mult_mathcr_atat:w
115      \MH_let:NwN \shoveleft\MT_shoveleft:wn
116      \MH_let:NwN \shoveright\MT_shoveright:wn
117      \spread@equation
118      \MH_set_boolean_F:n {mult_firstline}
119      \MT_measure_mult:n {#1}
120      \MH_if_dim:w \l_MT_multwidth_dim<\l_MT_multline_measure_fdim
121      \MH_setlength:dn \l_MT_multwidth_dim{\l_MT_multline_measure_fdim}
122      \fi
123      \MH_set_boolean_T:n {mult_firstline}
124      \MH_if_num:w \l_MT_multline_lastline_fint=\@ne
125      \MH_let:NwN \math@cr@@\MT_mult_firstandlast_mathcr:w
126      \MH_fi:
127      \ialign\bgroup
128      \hfil\strut@$\m@th\displaystyle{##}
129      \UseTaggingSocket{math/luamml/save/nNn}{\ } \displaystyle {mtd}}
130      $
131      \UseTaggingSocket{math/luamml/mtable/finalizecol}{last}
132      \hfil
133      \crrc
134      \hfilneg
135      #1
136    }

```

end hook

```

137 <@@=math>

138 \l__math_mathtools_init_tl
139 \ExplSyntaxOff

140 </kernel>

```

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