

# The `latex-lab-mathpkg` code\*

LATEX Project

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## Abstract

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## 1 Introduction

This file implements adaptions to various math packages needed for the tagging project.

## 2 The Implementation

```
1 <@@=math>
2 <*kernel>
```

### 2.1 File declaration

```
3 \ProvidesFile{latex-lab-mathpkg.ltx}
4 [2023-01-05 v0.1a mathpkg adaptions]
```

### 2.2 breqn

```
5 \AddToHook{package/breqn/after}{
6   \RegisterMathEnvironment{dmath}
7   \RegisterMathEnvironment{dgroup*}
```

---

\*

```

8   \AddToHook{env/dmath/begin}{\tagpdfparaOff}
9   \AddToHook{env/dgroup*/begin}{\tagpdfparaOff}
10 }

```

### 2.3 cases

Force loading of `amsmath` before cases.

```

11 \AddToHook {package/cases/before}{\RequirePackage{amsmath}}
12 \AddToHook{package/cases/after}{
13   \RegisterMathEnvironment{subnumcases}
14 }

```

### 2.4 bm

Similar to the `amsbsy` code in `latex-lab-amsmath` for `\pmb` we need to mark up copies as artifact:

```

15 \ExplSyntaxOn
16 \AddToHook{package/bm/after}
17 {
18   \def\bmpmb@@#1#2#3{%
19     \hbox_set:Nn\l_math_tmpa_box{$\m@th#1#3$}%
20     \dimen@#2\wd\tw@
21     \rlap{\box_use:N\l_math_tmpa_box}%
22     \tag_mc_end:\tag_mc_begin:n{artifact}%
23     \tag_mc_reset_box:N\l_math_tmpa_box
24     \kern\dimen@
25     \raise1.5\dimen@\rlap{\box_use:N\l_math_tmpa_box}%
26     \kern\dimen@
27     \box_use_drop:N\l_math_tmpa_box
28     \tag_mc_end:\tag_mc_begin:n{}%
29   }%
30 }
31 \ExplSyntaxOff
32 
```

### 2.5 Wrapper files for testphase key

# Index

The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.

<b>A</b>	<b>P</b>
\AddToHook . . . . .	<i>5, 8, 9, 11, 12, 16</i> \pmb . . . . .
	<u>3</u> \ProvidesFile . . . . .
<b>B</b>	<b>R</b>
box commands:	
\box_use:N . . . . .	<i>21, 25</i> \raise . . . . .
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box internal commands:	
\l_#1_math_tmpa_box . . .	<i>19, 21, 23, 25, 27</i> \RequirePackage . . . . .
<b>D</b>	<b>T</b>
\def . . . . .	<i>18</i> tag commands:
<b>E</b>	\tag_mc_begin:n . . . . .
\ExplSyntaxOff . . . . .	<i>22, 28</i> \tag_mc_end: . . . . .
\ExplSyntaxOn . . . . .	<i>22, 28</i> \tag_mc_reset_box:N . . . . .
<b>H</b>	
hbox commands:	
\hbox_set:Nn . . . . .	<i>19</i> \tagpdfparaOff . . . . .
<b>K</b>	
\kern . . . . .	<i>24, 26</i> \wd . . . . .
<b>W</b>	