

# Temporary output patches for tagging and better link support

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## 1 Introduction

This file contains a few patches of internal L<sup>A</sup>T<sub>E</sub>X commands to support paragraph tagging across page boundaries (in pdf<sub>T</sub>E<sub>X</sub>) and improve the behaviour of links across page breaks.

Until this get properly integrated with the kernel code this has to be taken as a prototype and code, interfaces as well as behavior may change without notice and certainly without any backwards compatibility!

## 2 The Implementation

```
1 <*package>
2 \ProvidesPackage{latex-lab-testphase-new-or-1}
3     [\ltxlabneworIdate\space v\ltxlabneworIversion\space
4     Temporary output patches for tagging and better link support]
5 \RequirePackage{etoolbox}
```

### 2.1 Patching the OR

This adds hooks around header and footer, in `\@makecol` and in `multicol`. At first initialize some of the hooks. We use `providecommand` to avoid problems if the kernel changes here and provides them directly.

```
6 \providecommand\@kernel@before@head{}
7 \providecommand\@kernel@before@foot{}
8 \providecommand\@kernel@after@head{}
9 \providecommand\@kernel@after@foot{}
10 \providecommand\@mult@ptagging@hook{}% multicol
11
12 \patchcmd\@outputpage
13   {\vfil\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox}
14   {\vfil\@kernel@before@head\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox\@kernel@after@head}
15   {\typeout{Patching header in \string\@outputpage}}{\PATCHerror }
16
17
18 \patchcmd\@outputpage
19   {\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox}
20   {\@kernel@before@foot\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox\@kernel@after@foot}
21   {\typeout{Patching footer in \string\@outputpage}}{\PATCHerror }
```

`\@makecol` We have to patch `\@makecol` in two places:

- update 255 up front to add missing tmb/tme if necessary
- update the `\footins` stream if that one got split

We patch `\@makecol`, if `new-or-2` is loaded too it will overwrite that again.

```

22 \providecommand\@kernel@before@footins{}
23 \providecommand\@kernel@tagsupport@@@makecol{}
24
25 \patchcmd\@makecol
26   {\vskip\skip\footins}
27   {\vskip\skip\footins\@kernel@before@footins}
28   {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHerror }
29
30 \patchcmd\@makecol
31   {\let\@elt\relax}
32   {\@kernel@tagsupport@@@makecol\let\@elt\relax}
33   {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHerror }
34
35 \AddToHook{package/footmisc/after}
36   {%
37     \def\@makecol{%
38       \setbox\@outputbox \box\@cclv
39       \@outputbox@removebskip
40       \@kernel@tagsupport@@@makecol
41       \let\@elt\relax
42       \xdef\@freelist{\@freelist\@midlist}%
43       \global \let \@midlist \empty
44       \@makecol@appendblocks
45       \ifvbox\@kludgeins
46         \@makespecialcolbox
47       \else
48         \@makenormalcolbox
49       \fi
50       \global \maxdepth \@maxdepth}
51   }
```

*(End of definition for `\@makecol`. This function is documented on page ??.)*

## 2.2 multicol adjustments

The patches for `pkgmulticol` are fairly minimal:

- At the start of the environment anything already on the page is picked up and stored in `\partial@page`, we may need to add a TMB to that (it should have a proper TME). This has to happen in the “main” stream context.

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- 

```

52 \AddToHook{package/multicol/after}
53   {% multicol needs later loading
```

```

54 \patchcmd\page@sofar
55   {\global\dimen\tw@dp\z@}%
56   {%
57     \global\dimen\tw@dp\z@
58     \@mult@ptagging@hook
59   }%
60   {\typeout{Patching \string\page@sofar\space for tagging}}{\PATCHerror}}%
61 }

```

## 2.3 Interrupt hooks

This requires the l3pdfannot module! We add the code here and not in hyperref, as it should also work with links created directly with the l3pdfannot commands. The file is only loaded by the pdfmanagement, so no need to test if the commands exist.

```

62 \ExplSyntaxOn
63 \def\@kernel@before@head{\pdfannot_link_off:}
64 \def\@kernel@before@foot{\pdfannot_link_off:}
65 \def\@kernel@after@head {\pdfannot_link_on:}
66 \def\@kernel@after@foot {\pdfannot_link_on:}
67 \ExplSyntaxOff
68 </package>
69 <*latex-lab>
70 \ProvidesFile{new-or-1-latex-lab-testphase.ltx}
71   [\lthlabneworIdate\space v\lthlabneworIversion\space
72     latex-lab wrapper new-or-1]
73 \RequirePackage{latex-lab-testphase-new-or-1}
74 </latex-lab>

```

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