

# Temporary output patches for tagging and better link support

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## 1 Introduction

This package contains a few patches of internal L<sup>A</sup>T<sub>E</sub>X needed to support paragraph tagging across page boundaries (in pdfT<sub>E</sub>X) 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{output-patches-tmp-ltx}
3     [2022-10-29 v0.96 Temporary output patches for tagging and better link support]
4 \RequirePackage{etoolbox}
```

### 2.1 Patching the OR

This add 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.

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

If the new latex-lab file for the output routine is loaded it will do the right thing. In the other case we patch `\@makecol` manually.

```
21 \ifpackageloaded{latex-lab-testphase-new-or}
22   {}
23   {
24     \providecommand\@kernel@before@footins{}
25     \providecommand\@kernel@before@cclv{}
26
27     \patchcmd\@makecol
28       {\vskip\skip\footins}
29       {\vskip\skip\footins\@kernel@before@footins}
30       {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHError }
31
32 % for some reason patching with etoolbox only works in this order ...
33
34     \pretocmd\@makecol{\@kernel@before@cclv}
35     {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHError }
36   }
```

*(End 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.
- 
- 

```
37 \AddToHook{package/multicol/after}
38   {% multicol needs later loading
39
40   \patchcmd\page@sofar
41     {\setbox\z@\hbox{p}\global\dimen\tw@dp\z@}%
42     {\setbox\z@\hbox{p}\global\dimen\tw@dp\z@
43     \mult@ptagging@hook
44     }%
45     {\typeout{Patching \string\page@sofar\space for tagging}}{\PATCHError}%
46 }
```

## 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.

```

47 \ExplSyntaxOn
48 \def\@kernel@before@head{\pdfannot_link_off:}
49 \def\@kernel@before@foot{\pdfannot_link_off:}
50 \def\@kernel@after@head {\pdfannot_link_on:}
51 \def\@kernel@after@foot {\pdfannot_link_on:}
52 \ExplSyntaxOff
53 </package>
54 <*\latex-lab>
55 \ProvidesFile{new-or-1-latex-lab-testphase.ltx}
56     [2022-10-26 v0.8 Temporary output patches for tagging and better link support]
57 \RequirePackage{latex-lab-testphase-new-or-1}
58 </latex-lab>

```

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