

# 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 (*code)
2 \ProvidesPackage{latex-lab-testphase-new-or-1}
3     [2022-11-94 v0.1a Temporary output patches for tagging and better link support]
4 \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.

```
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

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

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

*(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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- 

```
33 \AddToHook{package/multicol/after}
34   {% multicol needs later loading
35
36   \patchcmd\page@sofar
37     {\global\dimen\tw@dp\z@}%
38     {\global\dimen\tw@dp\z@
39     \@mult@ptagging@hook
40     }%
41     {\typeout{Patching \string\page@sofar\space for tagging}}{\PATCHError}%
42 }
```

## 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.

```
43 \ExplSyntaxOn
44 \def\@kernel@before@head{\pdfannot_link_off:}
45 \def\@kernel@before@foot{\pdfannot_link_off:}
46 \def\@kernel@after@head {\pdfannot_link_on:}
47 \def\@kernel@after@foot {\pdfannot_link_on:}
48 \ExplSyntaxOff
```

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