Temporary output patches for tagging and better link support

Frank Mittelbach Ulrike Fischer

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1 Introduction

This file contains a few patches of internal LaTeX commands to support paragraph tagging across page boundaries (in pdfTeX) 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

```
⟨*package⟩
\ProvidesPackage{latex-lab-testphase-new-or-1}
        [\ltlabneworIdate\space v\ltlabneworIversion\space
         Temporary output patches for tagging and better link support]
\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.

```
\providecommand\@kernel@before@head{}
\providecommand\@kernel@before@foot{}
\providecommand\@kernel@after@head{}
\providecommand\@kernel@after@foot{}
\providecommand\@mult@ptagging@hook{}% multicol

\patchcmd\@outputpage
 {\vfil\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox}
 {\vfil\@kernel@before@head\color@hbox\normalcolor\hb@xt@\textwidth{\@thehead}\color@endbox\@k
 {\typeout{Patching header in \string\@outputpage}}{\PATCHerror }


\patchcmd\@outputpage
 {\color@hbox\normalcolor\hb@xt@\textwidth{\@thefoot}\color@endbox}
 {\@kernel@before@foot\color@hbox\normalcolor\hb@xt@\textwidth{\@thefoot}\color@endbox\@kernel
 {\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.

```
\providecommand\@kernel@before@footins{}
\providecommand\@kernel@tagsupport@@makecol{}

\patchcmd\@makecol
  {\vskip\skip\footins}
  {\vskip\skip\footins\@kernel@before@footins}
  {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHerror }

\patchcmd\@makecol
  {\let\@elt\relax}
  {\@kernel@tagsupport@@makecol\let\@elt\relax}
  {\typeout{Patching \string\@makecol\space for tagging}}{\PATCHerror }

\AddToHook{package/footmisc/after}
 {%
  \def\@makecol{%
  \setbox\@outputbox \box\@cclv
  \@outputbox@removebskip
  \@kernel@tagsupport@@makecol
  \let\@elt\relax
  \xdef\@freelist{\@freelist\@midlist}%
  \global \let \@midlist \@empty
  \@makecol@appendblocks
  \ifvbox\@kludgeins
     \@makespecialcolbox
  \else
     \@makenormalcolbox
  \fi
  \global \maxdepth \@maxdepth}
}
```

(*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.
-
-

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

```
  \patchcmd\page@sofar
      {\global\dimen\tw@\dp\z@}%
      {%
        \global\dimen\tw@\dp\z@
        \@mult@ptagging@hook
      }%
      {\typeout{Patching \string\page@sofar\space for tagging}}{\PATCHerror}%
}
```

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.

```
\ExplSyntaxOn
\def\@kernel@before@head{\pdfannot_link_off:}
\def\@kernel@before@foot{\pdfannot_link_off:}
\def\@kernel@after@head {\pdfannot_link_on:}
\def\@kernel@after@foot {\pdfannot_link_on:}
\ExplSyntaxOff
```

⟨/package⟩

⟨*latex-lab⟩

```
\ProvidesFile{new-or-1-latex-lab-testphase.ltx}
              [\ltlabneworIdate\space v\ltlabneworIversion\space
               latex-lab wrapper new-or-1]
\RequirePackage{latex-lab-testphase-new-or-1}
```

⟨/latex-lab⟩

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