

Produce External Links Instead of Internal Ones*

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Abstract

A package to change automatic internal links in a document into external ones in the form `http://issue.com/action/page=PAGENUMBER` as required by <http://issuu.com>.

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1 Introduction

PDF visualizer ISSUU (<http://issuu.com>) is a popular service allowing to show PDF documents “one page a time”. Due to the way it is implemented, internal links in these documents are not allowed. Instead, they must be converted to external ones in the form `http://issuu.com/action/page?page=PAGENUMBER`.

This package patches `hyperref` to produce external links in the required form instead of internal links created by `\ref`, `\cite` and other commands.

Since the package redefines the internals of `hyperref`, you need to call it *after* `hyperref`.

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2 Usage

To use this package just add `\usepackage{issuulinks}` *after* calling `hyperref`. By default all links will be converted into the form required by ISSUU.

`\issuusetup` The command `\issuusetup{<setup commands>}` might be used to customize the behavior of the package. At present the only customizable command is `prefix`, that sets the part of the link before `PAGENUMBER` by default `http://issuu.com/action/page?page=`. You can change it, for example,

```
\issuusetup{prefix={http://www.issuu.com/action/page?page=}}
```

Otherwise the work of the package should be transparent for the user.

3 Implementation

3.1 Algorithm

The idea is following. Whenever `hyperref` creates an internal anchor $\{\langle name \rangle\}$, we write to the aux file the command `\newISSUULink{\langle name \rangle}{\langle abspage \rangle}`, where $\{\langle abspage \rangle\}$ is the absolute page number (as different from the displayed page number). Then when `hyperref` creates an internal link to $\{\langle name \rangle\}$, we substitute this to a call to <http://issuu.com> with the corresponding page number.

3.2 Declarations

We start with declaration, who we are:

```
1 \style\NeedsTeXFormat{LaTeX2e}
2 \*gobble
3 \ProvidesFile{issuulinks.dtx}
4 \</gobble>
5 \style\ProvidesPackage{issuulinks}
6 [2012/02/27 v1.0 Links in ISSUU style]

7 \*gobble
8 \documentclass{ltxdoc}
9 \usepackage{hypdoc}
10 \usepackage{url}
11 \CodelineIndex
12 \RecordChanges
13 \EnableCrossrefs
14 \begin{document}
15   \DocInput{issuulinks.dtx}
16 \end{document}
17 \</gobble>
18 \*style
```

3.3 Parameters

We use `keyval` to process options:

```
19 \RequirePackage{xkeyval}
```

`\issuusetup` The shorthand for setting options:

```
20 \def\issuusetup#1{\setkeys{ISL}{#1}}
```

`\ISL@prefix` The prefix macro:

```
21 \define@key{ISL}{prefix}{\def\ISL@prefix{#1}}
22 \issuusetup{prefix={http://issuu.com/action/page?page=}}
```

3.4 Working with Aux File

`\newISSUULink` The page numbers in `\Hy@abspage` start from zero, so we need to increment them:

```
23 \def\newISSUULink#1#2{\@tempcnta=#2\relax\advance\@tempcnta by1\relax
24 \expandafter\xdef\csname ISL@link#1\endcsname{\the\@tempcnta}}
```

Someone can use an aux file from the previous run, so we provide a safety valve:

```
25 \AtBeginDocument{%
26 \if@filesw
27 \immediate\write\@mainaux{\string\providecommand\string\newISSUULink[2]{}}%
28 \fi}
```

3.5 Writing the Internal Link Information

`\new@pdflink` We patch `\new@pdflink` to write its argument into the aux file. Note that the counter `\Hy@abspage` stores the absolute page position in *hyperref*. We do not prevent writing the internal anchor in the catalog—probably a waste of time and bits, but somebody might rely on this for some other purpose¹.

```
29 \let\new@pdflink@ISLorig=\new@pdflink
30 \def\new@pdflink#1{%
31 \@bsphack
32 \protected@write\@mainaux{%
33 {\string\newISSUULink{#1}{\the\Hy@abspage}}%
34 \@esphack
35 \new@pdflink@ISLorig{#1}}
```

3.6 Patching Internal Links

`\Hy@StartlinkName` The standard `\Hy@StartlinkName` is defined like this:

```
\def\Hy@StartlinkName#1#2{%
  \pdfstartlink attr{#1}goto name{#2}\relax
}
```

Here we are patching it. Note that we can have bad links if we use ‘old’ aux file

```
36 \def\Hy@StartlinkName#1#2{%
37 \expandafter\ifx\csname ISL@link#2\endcsname\relax
38 \PackageWarning{issuulinks}{The page number for an external link
39 is not defined. Setting it to 1. You need to rerun LaTeX to
40 get the page numbers right.}%
41 \expandafter\def\csname ISL@link#2\endcsname{1}\fi
42 \edef\Hy@pstringURI{\ISL@prefix\csname ISL@link#2\endcsname}%
43 \pdfstartlink attr{#1}%
44 user{%
45 /Subtype/Link%
46 \ifHy@pdfa /F 4\fi
47 /A<<%
```

¹Actually I am too lazy to do otherwise...

```

48         /Type/Action%
49         /S/URI%
50         /URI(\Hy@pstringURI)%
51         \ifHy@href@ismap
52         /IsMap true%
53         \fi
54         \Hy@href@nextactionraw
55     >>%
56     }%
57     \relax
58 }

59 </style>

```

Change History

v1.0

General: First released version . . . 3

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Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in *roman* refer to the code lines where the entry is used.

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