texlinks.sty

TEX-Related Links for hyperref, blog.sty (and maybe more)*

Uwe Lück†

January 22, 2013

Abstract

texlinks.sty provides a couple of shorthands for making hyperlinks with hyperref's[1] `\href` command, linking to URLs that one often refers to in discussing TEX-related material. URLs for TUG material (including texhax postings and TUGboat articles) and CTAN pages (package descriptions, directories, Catalogue), the UK FAQ, the LATEX and the TEX Wikibook, and Wikipedia (where much TEX-related software is described in a visually appealing manner) are generated from minimal identifiers by pure expansion. I have used them for documenting my packages (PDF) as well as for HTML overviews generated with blog.sty. They may furthermore be useful with better known (and better developed) TEX → HTML software such as tex4ht[2] or LaTeX2HTML[3] (I don't know, doubt latter).

Related packages: uri, url

Contents

*This document describes version v0.82 of texlinks.sty as of 2013/01/22.

†http://contact-ednotes.sty.de.vu

[1]http://www.ctan.org/pkg/hyperref

[2]http://www.ctan.org/pkg/tex4ht

[3]http://www.ctan.org/pkg/latex2html

1 Related Packages

- Martin Münch's uri provides links for scientific online publications.
- Donald Arseneau's url is about *typesetting* URLs, especially allowing linebreaks. It becomes relevant for texlinks in Section 4.3.

2 Usage

The file texlinks.sty is provided ready, installation only requires putting it somewhere where TEX finds it (which may need updating the filename data base).[4]

Below the `\documentclass` line(s) and above `\begin{document}`, you load texlinks.sty (as usually) by

```
\usepackage{texlinks}
```

Package options and user commands are described near their definitions below in the implementation section.

3 Preliminaries

3.1 Package File Header (Legalese)

```
1  \NeedsTeXFormat{LaTeX2e}[1994/12/01] %% \newcommand* etc.
2  \ProvidesPackage{texlinks}[2013/01/22 v0.82 TeX-related links (UL)]
3  %% copyright (C) 2011 2012 2013 Uwe Lueck,
4  %% http://www.contact-ednotes.sty.de.vu
5  %% -- author-maintained in the sense of LPPL below.
6  %%
7  %% This file can be redistributed and/or modified under
8  %% the terms of the LaTeX Project Public License; either
9  %% version 1.3c of the License, or any later version.
10 %% The latest version of this license is in
11 %%     http://www.latex-project.org/lppl.txt
12 %% We did our best to help you, but there is NO WARRANTY.
13 %%
14 %% Please report bugs, problems, and suggestions via
15 %%
16 %%   http://www.contact-ednotes.sty.de.vu
17 %%
```

3.2 `\newlet`

`\newlet`⟨*cmd*⟩⟨*cnd*⟩ is a guarded `\let`:

```
18 \providecommand*{\newlet}[2]{\@ifdefinable#1{\let#1#2}}
```

[4] http://www.tex.ac.uk/cgi-bin/texfaq2html?label=inst-wlcf

4 Links in General

4.1 Outline

The link macros of texlinks are based on macros `\httpref` and `\httpsref`. For use of texlinks with blog.sty, the latter provides definitions of `\httpref` and `\httpsref` suitable for HTML, where a choice of opening a new tab or window—or not—is relevant.

For use with hyperref (or . . .?), texlinks may provide definitions of `\httpref` and `\httpsref` based on `\href`. The decision to do so or not may happen at `\begin{document}`. blog.sty generates HTML without using the `{document}` environment, so we might assume that when `\begin{document}` is found, we are running hyperref, or just *something* that provides a useful `\href`. We might then execute a definition of `\httpref` in terms of `\href`. Well, not sure . . .

Moreover, a PDF file with links may be *printed*, and klicking the links on the paper may fail. URLs in main text, on the other hand, sometimes are troublesome. I consider it a good idea to present links with their URL as the displayed text in *footnotes* (or endnotes). It may even be useful with HTML to present the URLs displayed in some "appendix."—This idea has been resumed in v0.2 only, `\urlfoot` (Section 4.5.3).

4.2 Package Options

Somebody may want to suppress a definition of `\httpref` at `\begin{document}` . . . [2011/01/24, TODO]

v0.3: Package option `[blog]` suppresses *any* `\AtBeginDocument` actions—fine for use with blog.sty.

```
19  \DeclareOption{blog}{\let\AtBeginDocument\@gobble}
```

This option may be improved, and another option may be useful for different purposes than running blog.sty.

```
20  \ProcessOptions
```

4.3 Fonts for URLs and File/Package Names

This section "provides" markup for displaying URLs (`\urlfmt`), file names (`\filenamefmt`—thinking of single files that may be found in the internet or on your computer—, and "packages" (`\pkgnamefmt`). For the latter two, in certain files I use shorthands `\file` and `\pkg`, resp., . . . `\providecommand` will be used so that the user may choose the style before loading texlinks. (Once I may provide a variant of `\providecommand` that postpones the "provision" to the "beginning" of the "document", even with blog.sty TODO)

It is usual to use the same font as with `\texttt` for formatting TEX code ("verbatim", `\verb` etc.). It may also be common to use `\texttt` for file names, perhaps even for URLs. Therefore we provide `\urlfmt{⟨url⟩}` as follows:

```
\providecommand*{\urlfmt}{\texttt}
```

The user may (later) choose a more advanced treatment by loading url.sty and

```
\renewcommand{\urlfmt}{\url}
```

The file name format `\filenamefmt{`⟨*file-name*⟩`}` may differ from the format for URLs—if somebody wants/adjusts it, *here* it is the *same:*

```
\providecommand*{\filenamefmt}{\texttt}
```

. . . I favour `\code` over `\texttt` as "logical markup," inspired by the `<code>` element in HTML, but it is too difficult to provide this right now here . . .

(TODO 2012/12/29: This section seems to be relevant for Section 4.5.2 only and might move there.)

`\pkgnamefmt{`⟨*package-name*⟩`}` displays the name of a "package". Using `\textsf` for `\pkgnamefmt` seems to conform to common practice today—implemented here. The following code may later be suppressed at some package options, as with the choice for `\httpref`:

```
% \@ifdefinable\pkgnamefmt {\let\pkgnamefmt\@firstofone}
% \AtBeginDocument         {\let\pkgnamefmt\textsf}
```

← This was here until v0.7, makes a difference for PDF vs. blog/HTML. [Cf. Section 4.2!? TODO]—Now we choose the same as with `\urlfmt`:

```
\providecommand*{\pkgnamefmt}{\textsf}
```

Indeed, the same day we are providing `\textsf` in blog.sty. However, the rationale of the earlier solution was that web pages use sans-serif as the *normal* font . . .

4.4 Providing \httpref and \httpsref

`\httpref{`⟨*host-path[#frag]*⟩`}{`⟨*text*⟩`}`

should display ⟨*text*⟩ as a link to `http://`⟨*host-path[#frag]*⟩;

`\httpsref{`⟨*host-path[#frag]*⟩`}{`⟨*text*⟩`}`

is the obvious analogue for `https:` URLs. In case `\begin{document}` is found with a definition of `\href` present, we provide definitions of `\httpref` and `\httpsref` in terms of `\href` there:

```
\AtBeginDocument{%
    \@ifundefined{href}{%
%       \PackageError ... TODO!? 2011/01/24
      }{\newcommand*{\httpref} [1]{\href {http://#1}}%
        \newcommand*{\httpsref}[1]{\href{https://#1}}}}
```

4.5 Variants of \httpref and \httpsref

\NormalHTTPref may be used as an alias for \httpref in situations where the latter has been redefined (as in Section 4.5.3):

```
31  \AtBeginDocument{\newlet\NormalHTTPref\httpref}  %% TODO: sec:opt
```

\ithttpref{⟨*url*⟩}{⟨*text*⟩} displays ⟨*text*⟩ in italics:

```
32  % \newcommand*{\ithttpref}[2]{\NormalHTTPref{#1}{\textit{#2}}}
```

However, I seem never to have used it. And I would now prefer \metahttpref TODO ...

4.5.1 Protocol Prefix

\httpprefix is an idea that was missing in blog.sty up to v0.3. It may be used to determine generally whether a display of an URL should include `http://`. I choose as default what was default in blog.sty (i.e., "don't include"):

```
33  \@ifdefinable\httpprefix{\let\httpprefix\@empty}    %% TODO cf. above
```

`\let\httpprefix\relax` would be bad for blog.sty (would display `\relax`), while it would be somewhat more efficient.

Now you may customize \httpprefix by

```
\renewcommand{\httpprefix}{http://}
```

—or by `\let\httpprefix`\theHTTPprefix:

```
34  \newcommand*{\theHTTPprefix}{http://}
```

With \urlhttpsref{⟨*url*⟩}, we *force* displaying '`https://`':

```
35  \newcommand*{\urlhttpsref}[1]{\httpsref{#1}{\urlfmt{https://#1}}}
```

4.5.2 The URL (or a Part) as the Link Text Phrase

With \urlhttpref{⟨*url*⟩}, that URL ⟨*url*⟩ is displayed:

```
36  \newcommand*{\urlhttpref}[1]{%
37      \NormalHTTPref{#1}{\urlfmt{\httpprefix#1}}}
```

In blog.sty (as of 2010/05/26), there was a command \urlref instead of \urlhttpref. It did not provide \urlfmt.

\domainref{⟨*domain*⟩}{⟨*path*⟩} is similar, but is intended to show the domain part ⟨*domain*⟩ of the URL ⟨*domain*⟩/⟨*path*⟩ only. This may be useful when the entire URL does not look nice, while the domain name is a kind of logo, and when comparing what different web portals have to say about the same matter, such as the web versions of newspapers or magazines. So you may compare how `www.ctan.org` and `alan.smcvt.edu` inform about the morehype bundle (v0.8). The command is also used in Section 6.1 for `tex.stackexchange.com`.

```
38  \newcommand*{\domainref}[2]{\httpref{#1/#2}{\urlfmt{#1}}}
```

4.5.3 Linking URLs in Footnotes

`\foothttpurlref{`⟨*url*⟩`}` just is like `\footnote{\urlhttpref{`⟨*url*⟩`}}`:

```
39  \newcommand*{\foothttpurlref}[1]{\footnote{\urlhttpref{#1}}}
```

`\urlfoot{`⟨*short*⟩`}{`⟨*id*⟩`}` redefines `\httpref` so that you can use all the shorthand macros based on `\httpref` to get the according URL display (as provided by `\urlhttpref`) in a footnote without the need to include the entire URL in your source code. `\urlfoot` is available with ⟨*short*⟩ and ⟨*id*⟩ when a shorthand `\`⟨*short*⟩`{`⟨*id*⟩`}{`⟨*text*⟩`}` has been defined where `\`⟨*short*⟩ is the macro name and ⟨*id*⟩ is the target identifier (usually part of the URL generated from ⟨*id*⟩) according to the syntax declaration of `\`⟨*short*⟩.

```
40  \newcommand*{\urlfoot}[2]{{%
41      \let\httpref\foothttpurlref
42      \let\httpprefix\theHTTPprefix   %% TODO customizable!?
43      \csname #1\endcsname{#2}{}}}
```

Example:

`\CtanPkgRef{morehype}{MoreHype}` and `\ctanpkgref{morehype}`

are provided in Section 7.2.8 for linking to `http://ctan.org/pkg/morehype`.

- `\CtanPkgRef{morehype}{MoreHype}` yields MoreHype
- `\urlfoot{CtanPkgRef}{morehype}` yields [5]
- `\ctanpkgref{morehype}` yields morehype
- `\urlfoot{ctanpkgref}{morehype}` yields [6]morehype

The lonely 'morehype' you see there above demonstrates that it doesn't work with `ctanpkgref` because `\ctanpkgref` doesn't have separate arguments for ⟨*id*⟩ and ⟨*text*⟩, it actually doubles ⟨*id*⟩. A local `\let\ctanpkgref\CtanPkgRef` could help, but right now I prefer waiting for a better idea. [TODO]

v0.3: Now that using `\urlfoot` and `ctanpkgref` together is so clumsy, while I use it quite often, we get `\urlpkgfoot{`⟨*package-id*⟩`}`, abbreviating `\urlfoot{CtanPkgRef}{`⟨*package-id*⟩`}`:

```
44  \newcommand* {\urlpkgfoot} {\urlfoot{CtanPkgRef}}
```

[5] `http://www.ctan.org/pkg/morehype`
[6] `http://www.ctan.org/pkg/morehype`

4.5.4 URL Bases

We typically refer to many web pages under a certain domain, or in certain subdirectories there. Before v0.6, I made many definitions like

```
\newcommand*{\myref}[1]{\httpref{⟨my-base⟩/#1}}
```

for this purpose. Storing the definition of such a `\myref` uses 8 tokens in addition to those from ⟨*my-base*⟩. With

```
\newcommand*{\myref}{\httpbaseref{⟨my-base⟩}}
```

we need 5 tokens instead, using `\httpbaseref{⟨base⟩}{⟨rest⟩}{⟨text⟩}` defined as follows:

```
\newcommand*{\httpbaseref}[2]{\httpref{#1/#2}}
```

Then `\myref{⟨rest⟩}{⟨text⟩}` will work like

```
\httpref{⟨my-base⟩/⟨rest⟩}{⟨text⟩}
```

We change many definitions in ensuing sections accordingly—and with v0.82 we add a shorthand for definitions like the avove one for `\myref`.

`\MakeBasedHref{⟨cmd⟩}{⟨base⟩}`

may be applied as

```
\MakeBasedHref{\myref}{⟨my-base⟩}
```

above. In the general situation, ⟨*cmd*⟩`{`⟨*path*⟩`}{`⟨*text*⟩`}` will work like `\httpref{`⟨*base*⟩`/`⟨*path*⟩`}{`⟨*text*⟩`}`.

```
\newcommand*{\MakeBasedHref}[2]{%
    \ifx#1\@undefined \else \ifx#1\relax \else
        \PackageWarning{texlinks}{Redefining \string#1.}%
    \fi \fi
    \def#1{\httpbaseref{#2}}}
```

However, it does not act like `\newcommand` when ⟨*cmd*⟩ has been defined earlier, it rather resembles `\DeclareRobustCommand`, in that it just *warns* in such a case. I don't actually make ⟨*cmd*⟩ robust because I guess it is anyway: The reason for allowing redefinitions has been application to cases where the user should be able to customize commands (Section 7.2.4)—well, I could have `\NewBasedHref` and `\RenewBasedHref` some time TODO[7]; TODO: `\@onlypreamble`?

The situation is similar with (many) anchors of a (large) web page. With v0.6, we introduce

`\httpancref{⟨page-url⟩}{⟨anchor⟩}`

—*perhaps*, with `\mirrorctanref` (Section 7.2.6) etc.? TODO

```
% \newcommand*{\httpancref}[2]{\httpref{#1\##2}}
```

[7] And for sections 6.2 and 7.8, an optional argument would have been nice.

5 Google

`\googleref{`⟨*keywords*⟩`}{`⟨*text*⟩`}` generates a Google search page with keywords from ⟨*keywords*⟩ in which they are separated by '+', as in

```
\googleref{tex+friends}{\TeX~\&␣friends}
```

which results in (I'm curious ...) TEX & friends:

```
\newcommand*{\googlecom}{google.com/}
\newcommand*{\googleref}[1]{\httpref{\googlecom\#q=#1}}
```

`\googlemapsref{`⟨*keywords*⟩`}{`⟨*text*⟩`}` generates a Google map from the ⟨*keywords*⟩. ⟨*keywords*⟩ may compose an address for a TEX users' meeting, so Google may show them their way.

⟨*keywords*⟩ = 'munich+offenbachstrasse+21'

results in where this has been written.

```
\newcommand*{\googlemapsref}[1]{\httpref{maps.\googlecom maps?q=#1}}
```

6 Wikipedia

6.1 Overview

The present section on links to Wikipedia articles starts with the rather obvious

`\wikilangref{`⟨*language-code*⟩`}{`⟨*lemma*⟩`}{`⟨*text*⟩`}`

but then gets somewhat technical. Section 6.5 may please the user again by

`\Wikiref{`⟨*lemma*⟩`}`

where the language version of the Wikipedia is chosen according to a macro `\langcode` expanding to 'en' by default. On `tex.stackexchange.com`, I have posted the following "minimal working example:"

```
\documentclass{minimal}
\usepackage{hyperref,texlinks}
\begin{document}
    Look up \wikiref{Charlie Bucket}{Wikipedia}
        for \Wikiref{Charlie Bucket}.
\end{document}
```

You may find it as `wiki_mwe.tex` with outcome `wiki_mwe.pdf`. See Section 6.5 for more examples.

Apart from `\langcode`, more advanced things are *disambiguation* (Section 6.2), "piped links" (Section 6.3), and special characters in URLs (Section 6.6).

6.2 Backbones

As of v0.6, we have a backbone macro

`\wikilangref{`⟨*language-code*⟩`}{`⟨*lemma*⟩`}{`⟨*text*⟩`}`

for links to Wikipedia. (It was `\wikiref` before, starting with v0.4—sorry!) ⟨*language-code*⟩ consists of two characters like '`de`' for German Wikipedia articles or '`en`' for English ones. ⟨*lemma*⟩ is the identifier of the article, and ⟨*text*⟩ is displayed as the link:

```
55  % \newcommand*{\wikilangref}[2]{\httpref{#1.wikipedia.org/wiki/#2}}
```

← 2012/03/09 etc. with Section 4.5.4 →

```
56  \newcommand*{\wikilangref}[1]{\httpbaseref{#1.wikipedia.org/wiki}}
```

There is `\Wikilangref{`⟨*language-code*⟩`}{`⟨*lemma*⟩`}` for the case that ⟨*lemma*⟩ and ⟨*text*⟩ are the same. With v0.7 however, this command becomes more powerful, see Section 6.3.

```
57  % \newcommand*{\Wikilangref}[2]{\wikilangref{#1}{#2}{#2}}
```

`\wikilangref{`⟨*lang*⟩`}[`⟨*lemma*⟩`]{`⟨*text*⟩`}` would be nicer; however, the present code is to work with blog.sty which does not support optional arguments.

Quite often, programs share their names with movies, biological species, etc., then lemma disambiguation is required. Usually, we don't want to display the disambiguation.

`\Wikilangdisambref{`⟨*language-code*⟩`}{`⟨*term*⟩`}{`⟨*tag*⟩`}`

will link to

`http://`⟨*language-code*⟩`.wikipedia.org/wiki/`⟨*term*⟩`_(`⟨*tag*⟩`)`

```
58  \newcommand*{\Wikilangdisambref}[3]{\wikilangref{#1}{#2 (#3)}{#2}}
```

There was something like a more general variant `\wikidisambref`, now I doubt its usefulness and omit it in order to see where it occurs (2011/05/13).

For **anchors**, '`#`' can be used with blog.sty—and even with hyperref.

Example: `\wikilangref{en}{TeX#History}{history}` for history

6.3 Piped Links

v0.7 emulates Wikipedia's piped links as with Wikipedia source code

```
[[Pipeline|Pipe]]
```

to get a link to article 'Pipeline' with displayed text 'Pipe'. The same syntax (double brackets) is actually supported by blog.sty with markblog.sty, while otherwise only

`\Wikilangref{`⟨*language-code*⟩`}{`⟨*lemma*⟩`|`⟨*text*⟩`}`

works—with settings more below something like `\Wikiref{`⟨*lemma*⟩`|`⟨*text*⟩`}`—which admittedly is not much better than the equivalent

`\wikiref{`⟨*lemma*⟩`}{`⟨*text*⟩`}`

Even Wikipedia's feature that empty ⟨*text*⟩ removes the disambiguation term as with `[[Pipe␣(computing)|]]` resulting in 'Pipe' is supported.

```
\newcommand*{\Wikilangref}[2]{%
    \@wikilpref{#1}#2\BiteSep|\@nnil\BiteSep\@nil{#2}}
```

I have introduced `\BiteSep` and this kind of parsing in the bitelist [8] package.

```
\def\@wikilpref#1#2|#3\BiteSep#4\@nil#5{%
    \ifx\@nnil#3\@empty
        \wikilangref{#1}{#5}{#5}%
    \else
        \wikilangref{#1}{#2}{%
            \ifx\@three#3\@three
                \wiki@noparen#2\@nil%
            \else
                #3%
            \fi}%
    \fi}
\def\wiki@noparen#1 (#2\@nil{#1}
```

I have thought about improving bitelist.sty, resulting in the following code. In the present application, I do not consider it superior. It uses the same number of tokens but new one has additional expansion step. The situation is different to the general case because doing everything before `\fi` is okay here.

```
% \newcommand*{\Wikilangref}[2]{%
%     \@wikilPref{#1}#2\BiteSep\@secondoftwo
%                     |\BiteSep\@firstoftwo\@nil{#2}}
% \def\@wikilPref#1#2|#3\BiteSep#4#5\@nil#6{%
%     #4{\wikilangref{#1}{#6}{#6}}%
%       {\wikilangref{#1}{#2}{%
%             \ifx\@three#3\@three
%                 \wiki@noparen#2\@nil%
%             \else
%                 #3%
%             \fi}}}
```

6.4 English and German

The next macros just save you from typing braces around the language codes for English and German: `\wikienref{`⟨*lemma*⟩`}{`⟨*text*⟩`}` refers to the English Wikipedia, `\wikideref{`⟨*lemma*⟩`}{`⟨*text*⟩`}` refers to the German one.

[8] `http://www.ctan.org/pkg/bitelist`

```
\newcommand*{\wikideref}{\wikilangref{de}}
\newcommand*{\wikienref}{\wikilangref{en}}
```

`\Wikideref{`⟨*lemma*⟩`}` refers to article ⟨*lemma*⟩ in the German Wikipedia and displays ⟨*lemma*⟩ as ⟨*text*⟩:

```
\newcommand*{\Wikideref}{\Wikilangref{de}}
```

`\Wikienref{`⟨*lemma*⟩`}` is `\Wikideref`'s analogue for English:

```
\newcommand*{\Wikienref}{\Wikilangref{en}}
```

`\Wikidedisambref{`⟨*lemma*⟩`}{`⟨*tag*⟩`}` chooses a disambiguation according to ⟨*tag*⟩ for the German Wikipedia, `\Wikiendisambref{`⟨*lemma*⟩`}{`⟨*tag*⟩`}` for the English one:

```
\newcommand*{\Wikidedisambref}{\Wikilangdisambref{de}}
\newcommand*{\Wikiendisambref}{\Wikilangdisambref{en}}
```

6.5 "Implicit" Choice of Language

With v0.6, `\wikiref{`⟨*lemma*⟩`}{`⟨*text*⟩`}` works like

`\wikilangref{`⟨*lc*⟩`}{`⟨*lemma*⟩`}{`⟨*text*⟩`}`

when `\langcode` expands to ⟨*lc*⟩ (the two-letter language code according to ISO 639-1). The default for ⟨*lc*⟩ is '`en`' for English. It can be overridden even before loading texlinks (e.g., by an earlier `\newcommand\langcode{de}`):

```
\providecommand*{\langcode}{en}
```

For the German versions, use `\renewcommand{\langcode}{de}`. The langcode package provides a command `\uselangcode{`⟨*lc*⟩`}` that works like `\renewcommand*{\langcode}{`⟨*lc*⟩`}` and adjusts a number of other settings.

```
\newcommand*{\wikiref}{\wikilangref\langcode}
```

`\Wikiref{`⟨*lemma*⟩`}` and `\Wikidisambref{`⟨*term*⟩`}{`⟨*add*⟩`}` are the obvious analogues (cf. Section 6.2):

```
\newcommand*{\Wikiref}{\Wikilangref\langcode}
\newcommand*{\Wikidisambref}{\Wikilangdisambref\langcode}
```

Examples

Code	Outcome
`\Wikiref{LaTeX}`	LaTeX
`\wikiref{LaTeX}{\LaTeX}`	LaTeX
`\Wikidisambref{Latex}{disambiguation}`	Latex

6.6 Blanks and Umlauts in URLs and Anchors

`\underscorechar` seemed to be useful in macro definitions. The name was inspired by LaTeX's `\@backslashchar` and `\@percentchar`. However, I am now trying what happens without it. It occurred in `blog.tex` for the documentation of the blog package, but `\string_` seems to be a good replacement.

```
94  % \newcommand \underscorechar {}
95  % {\@makeother\_ \gdef\underscorechar{_}}
```

Anyway, in my notes I have a more elegant macro for providing "other" versions of special characters.

Guessing what `\underscorechar` was good for (2011-05-17): Wikipedia lemmas and anchors often or even *typically* contain *blank spaces*. The Wikipedia software usually converts them into underscore characters. Blank spaces in *lemmas* seem *not* to need treatment here in texlinks. However, Wikipedia also creates *anchors* from *section headings*, which typically contain blank spaces. This has been more difficult ...

Likewise with umlauts: text encoding suffices for *lemmas* (my `\urluml` is not needed for this purpose). But umlauts in *anchors* generated from *section headings* are different. While umlauts in *lemmas* are represented by sequences starting with a *percent* character, the anchors use a *dot* instead of the percent character. Therefore now `\ancuml{`⟨*char*⟩`}` is provided:

```
96  \newcommand*{\ancuml}[1]{\csname ancuml:#1\endcsname}
97  \@namedef{ancuml:a}{.C3.A4}
98  \@namedef{ancuml:o}{.C3.B6}
99  \@namedef{ancuml:u}{.C3.BC}
100 \@namedef{ancuml:s}{.C3.9F}

101 % \newcommand*{\itwikideref}[2]{\wikideref{#1}{\textit{#2}}}

102 % \newcommand*{\itwikienref}[2]{\wikienref{#1}{\textit{#2}}}

103 % \newcommand*{\urluml}[1]{\csname urluml:#1\endcsname}
104 % \@namedef{urluml:a}{\#C3\#A4}
105 % \@namedef{urluml:o}{\#C3\#B6}
106 % \@namedef{urluml:u}{\#C3\#BC}
107 % \@namedef{urluml:s}{\#C3\#9F}           %% 2010/08/09
```

7 TEX-related

7.1 .html

The shorthand macro `\html` saves a few tokens for the standard extension '`.html`' of HTML files on TEX-related sites:

```
108 \newcommand*{\html}{.html}
```

7.2 CTAN

7.2.1 Overview: Archive vs. Descriptions Roots

There have been *TEX archive roots* and *TEX package description roots* on CTAN web sites. I cannot define those terms exactly.

Examples of TEX **archive** roots currently (2012-01-20) are `tug.ctan.org`, the random resolutions of `mirror.ctan.org`, and `www.ctan.org/tex-archive/`. They provide almost all material that may be useful in running TEX and share an essentially fixed directory structure which however may vary over time due to new contributions. Among the top-level subdirectories of an archive root are `fonts`, `graphics`, and `macros/latex/contrib`.

Macro names for TEX archive roots will look like ⟨*prefix*⟩`ctanref`. In order to access an archive with root ⟨*ctan*⟩, such a macro will be defined as

`\httpbaseref{`⟨*ctan*⟩`}`

in Section 7.2.3 (apart from using shorthand macros for ⟨*ctan*⟩)—see Section 7.2.1 for `\httpbaseref`.

Examples of TEX package **description** roots currently are `www.ctan.org` (which works like `ctan.org`) and `alan.smcvt.edu` (Jim Hefferon's site at Saint Michael's College in Vermont, USA. They have shared subdirectories `pkg` and `author`. When some package is described with an *identifier* ⟨*id*⟩, its description appears under

`http://ctan.org/pkg/`⟨*id*⟩.

Macro names for such domains will look like ⟨*prefix*⟩`ctanorgbaseref`. In order to access package descriptions from ⟨*ctan-org*⟩, such a macro will be defined as

`\httpbaseref{`⟨*ctan-org*⟩`}`

in Section 7.2.7.

Observations:

1. All the *description* roots have been *domains*.
2. A *domain* ⟨*prefix*⟩`.ctan.org` — `\ctanorg` saves a few tokens here:

```
109  \newcommand*{\ctanorg}{.ctan.org}
```

   —has been *either* a package *description* root *or* a TEX *archive* root.

3. When ⟨*ctan-org*⟩ has been a *description* root, ⟨*ctan-org*⟩`/tex-archive` has been a TEX *archive* root (with a similar design).

7.2.2 History of `tug.ctan.org`

When the present texlinks package started in January 2011, I preferred the design and information of Jim's package descriptions under `ctan.org` to the very similar descriptions by *The TEX Catalogue* (Section 7.2.6), and I preferred Jim's design of TEX archive directory displays in the above-mentioned archive with root `ctan.org/tex-archive`. The texlinks *documentation* explicitly said that certain URLs referred to Jim Hefferon's pages.

With the advent of "the new `www.ctan.org`" announced on 2012-12-12, Jim's design was no longer available as described before. The links intended to get Jim's design received a collection of different designs to choose from, while I preferred Jim's to all of them. So the texlinks documentation suddenly was wrong. A serious contentual shortcoming in my view was that, unlike Jim's and the Catalogue's package descriptions, the new ones did not display direct links to package documentations—this difference vanished after Christmas. Moreover, the links to lists of packages by the same author suddenly just failed, were "dead."

I discovered that I only had to replace `ctan.org` by `tug.ctan.org` in order to get the original functionality of texlinks—linking to Jim's pages—back. This was implemented by texlinks v0.8, introducing `\tugctanorg` (useful in the present documentation—Section 7.2.10, Section 7.2.7) and derived macros. In the terms introduced above, `tug.ctan.org` then was a *package description root*.

Apparently on December 21th, within 24 hours after uploading v0.8, `tug.ctan.org` ceased to refer to Jim's pages and actually no longer provided a TEX archive or package descriptions. My

`www.webdesign-bu.de/uwe_lueck/heyctan.htm`

became a superb collection of dead links, and `\tugctanref` and `\usetugctan` from v0.41 as well as `\TugCtanPkgRef` and `\useTUGpkgpages` (among others) became useless.

Then I discovered that `ctan.tug.org` still was a *package description root* with Jim's design. Although Robin Fairbairns and Jim warned me that Jim's pages may be switched off altogether soon, I replaced `tug.ctan.org` by `ctan.tug.org` (including the definition of `\tugctanorg`) for texlinks v0.81 and

released it on 2013-01-04. Quite immediately, `ctan.tug.org` showed the same behaviour has `tug.ctan.org`, killing the links of my `heyctan.htm` again.

`alan.smcvt.edu` seems to be the last resort to get Jim's package descriptions and archive directories. `\tugctanorg` now becomes heavily counter-intuitive, but this way I need not change so much.

```
110 \newcommand*{\tugctanorg}{alan.smcvt.edu} %%% {ctan.tug.org}
```

Karl Berry informed me 2013-01-09 that `tug.ctan.org` has started to be a relatively long-term *TEX archive root*—while I first used it as a *package description* root and `tug.ctan.org/tex-archive` as an archive root). One may remember in the sequel that `tugctan` refers to *former* `tug.ctan.org` rather than to the *present* one. Anyway, usage of these macros is **not recommended**, they are rather a kind of "compatibility" code for old source files. Personally, I also restrict their usage to source files that I edit regularly, so I am quickly aware of changes of links.

7.2.3 Directories and Files in a TEX Archive

`\tugctanref{`⟨*path*⟩`}{`⟨*text*⟩`}`

hopefully makes ⟨*text*⟩ a link to a TEX Archive directory or file ⟨*path*⟩ with Jim Hefferon's interface.

```
111 \MakeBasedHref{\tugctanref}{\tugctanorg/tex-archive}
```

Example: `\tugctanref{}{Archive root}` for Archive root

Alternatively, you can refer to an (automatically chosen) CTAN *mirror* using

`\mirrorctanref{`⟨*path*⟩`}{`⟨*text*⟩`}`.

```
112 \MakeBasedHref{\mirrorctanref}{mirror\ctanorg}
```

Example: `\mirrorctanref{}{Archive root}` for Archive root

You may actually want to "open" a file ⟨*file-name*⟩ in ⟨*path*⟩ on CTAN, ⟨*file-name*⟩ displayed as the link text, by

`\mirrorctanfileref{`⟨*path*⟩`}{`⟨*file-name*⟩`}`.

```
113 % \newcommand*{\tugctanfileref}[2]{%
114 %     \tugctanref{#1/#2}{\filenamefmt{#2}}}
115 \newcommand*{\mirrorctanfileref}[2]{%
116     \mirrorctanref{#1/#2}{\filenamefmt{#2}}}
```

Typically, LATEX macro packages in `macros/latex/contrib/` are discussed, so here is `\ltxcontrib` saving a few characters:

```
117 \newcommand*{\ltxcontrib}{macros/latex/contrib/}
```

Example:

```
\mirrorctanref{\ltxcontrib morehype}{\pkg{morehype}}
```

yields morehype.

v0.82 removes `\tugctanfileref` which seems not to be useful. My reason to choose Jim Hefferon's pages was how CTAN *directories* are displayed. For *opening a file* from, any mirror should do. However ... TODO

Only for v0.82 I realize that the "new `www.ctan.org`" might provide directory designs (you can choose from predefined ones and install your own) that users prefer to the directory display of common CTAN mirrors.

`\wwwctanref{`⟨*path*⟩`}{`⟨*text*⟩`}`

is made for this purpose. It may replace `\tugctanref` especially when the latter vanishes:

```
118  \MakeBasedHref{\wwwctanref}{www\ctanorg/tex-archive}
```

Example: `\wwwctanref{}{Archive root}` for Archive root

7.2.4 Shorthand `\ctanref` for CTAN Mirrors

`\ctanref` works like one out of

`\tugctanref`, `\mirrorctanref`, `\wwwctanref`, `\myctanref`

depending on which out of

`\usetugctan`, `\usemirrorctan`, `\usewwwctan`, `\usemyctan`

appeared most recently. By default, it works like `\mirrorctanref`. So in any case its syntax is

`\ctanref{`⟨*path*⟩`}{`⟨*text*⟩`}`.

The idea is that it is a shorthand to access the user's favourite CTAN mirror, or just to save the `www` in `\wwwctanref`, for instance. It may also be modified directly using

`\MakeBasedHref{\ctanref}{`⟨*ctan-mirror*⟩`}`

where ⟨*ctan-mirror*⟩ is a URL of a root of a CTAN mirror, or by

`\renewcommand{\ctanref}{\dirctanref}`

for instance ... another macro for a CTAN mirror that you may meet soon. (See Section 4.5.4 for `\MakeBasedHref`.)

```
\newcommand*{\usemirrorctan}{%
    \let \ctanref     \mirrorctanref
%     \let \ctanfileref \mirrorctanfileref
}
```

`\usemirrorctan` is the **default**, i.e., `\ctanref` uses `mirror.ctan.org`:

```
\usemirrorctan
\newcommand*{\usetugctan}{%
    \let \ctanref     \tugctanref
%     \let \ctanfileref \tugctanfileref
}
\newcommand*{\usewwwctan}{\let\ctanref\wwwctanref}
```

`\myctanref` again is *initialized* to work like `\mirrorctanref`:

```
\newlet\myctanref\mirrorctanref
```

However, it is *intended* to store the user's favourite mirror ⟨*my-ctan*⟩, hoping that the user issues

`\MakeBasedHref{\myctanref}{`⟨*my-ctan*⟩`}`

and *only afterwards* issues `\usemyctanref`:

```
\newcommand*{\usemyctanref}{\let\ctanref\myctanref}
```

... not entirely sure ... the user could directly issue

`\MakeBasedHref{\ctanref}{`⟨*my-ctan*⟩`}`

The advantage of `\usemyctanref` is that you can switch to another `\ctanref` later and then return to `\myctanref` ... not so stable TODO

Remark (TODO) Another implementation of adjusting `\ctanref` I consider is using some `\ctanurlprefix` that you can redefine for accessing your favourite mirror.

7.2.5 Flexibiblity with Files and Directories

With some influence of the ideas of v0.41, `\ctanref` now is a shorthand for viewing CTAN directories, e.g., working like `\mirrorctanref`. There was a flexible variant of `\mirrorctanfileref` too, but the implementation was bad from my present view. I no longer want to offer downloads from Jim's pages.

`\ctanfileref{`⟨*path*⟩`}{`⟨*file*⟩`}`

displays ⟨*file*⟩ as link text and opens it. The mirror is chosen according to a shorthand `\filectanref{`⟨*path*⟩`/`⟨*file*⟩`}{`⟨*text*⟩`}` that can be adjusted with `\MakeBasedHref` like `\ctanref`:

```
\newcommand*{\ctanfileref}[2]{%
    \filectanref{#1/#2}{\filenamefmt{#2}}}
```

`\filectanref` is initialized to work like `\mirrorctanref`:

```
133 \newlet\filectanref\mirrorctanref
```

The purpose is that the user adjusts it by

`\MakeBasedHref{\filectanref}{⟨ctan-down⟩}`

when she wants to download (open) files from CTAN mirror ⟨*ctan-down*⟩, which may be the mirror at the university where she sits.

Example:

```
\ctanfileref{\ltxcontrib morehype/doc}{texlinks.pdf}
```

yields `texlinks.pdf`

It may be psychologically useful to have an *opposite* to `\filectanref` that can easily be recognized as such, while `\ctanref` may be unclear. I offer `\dirfilectanref{⟨path⟩}{⟨text⟩}`. It may be an alias for `\ctanref`, even respecting the `\use...` commands from above. Another proposal above is dangerous with the present idea:

```
134 \newcommand*{\dirctanref}{\ctanref}
```

7.2.6 The TEX Catalogue OnLine

Before v0.8, only Jürgen Fenn's Topical Index of the Catalogue was supported. v0.8 adds package descriptions displayed by the Catalogue. The following shorthand `\catalogueref{⟨path[#frag]⟩}{⟨text⟩}` is an auxiliary for both of them (and other ⟨*path*⟩s the user might want). With empty ⟨*path*⟩, it generates an URL of a root in a CTAN mirror of *The TEX Catalogue OnLine*:

```
135 \newcommand*{\catalogueref}[1]{\mirrorctanref{help/Catalogue/#1}}
```

Some mirrors seem to display the Catalogue's root directory only this way, while others display the "Welcome" page. `\cataloguestartref{⟨text⟩}` accesses the **Welcome** (**start**) page surely:

```
136 \newcommand*{\cataloguestartref}{\catalogueref{index\html}}
```

`\bytopicref{⟨anchor⟩}{⟨text⟩}` makes ⟨*text*⟩ a link to ⟨*anchor*⟩ of **Jürgen Fenn's Topical Index** of the TEX Catalogue. You find the ⟨*anchor*⟩ by clicking at the respective TOC entry on top of the page and then read the URL from the browser's navigation display.

```
137 \newcommand*{\bytopicref}[1]{\catalogueref{bytopic\html\##1}}
```

Example: `\bytopicref{html}{\TeX~to HTML}` for TEX to HTML

`\catpkgref{`⟨*pkg-name*⟩`}`

makes ⟨*pkg-name*⟩ a link to the description of the **package** ⟨*pkg-name*⟩ in *The TEX Catalogue Online*.

`\CatPkgRef{`⟨*name*⟩`}{`⟨*Name*⟩`}`

is a variant for the cases where authors have a special idea ⟨*Name*⟩ using some capital letters when they describe their packages (ASCII versions of "logos" such as `BibTeX`) while the identifier ⟨*name*⟩ doesn't allow capital letters. Also, ⟨*Name*⟩ may be a package from a *bundle* ⟨*name*⟩ where ⟨*name*⟩ has a description page while ⟨*Name*⟩ doesn't have its *own* description page ...

Example: `\CatPkgRef{morehype}{texlinks}` for texlinks

The auxiliary `\@double@first@arg`⟨*cmd*⟩`{`⟨*arg*⟩`}` doubles `{`⟨*arg*⟩`}` for ⟨*cmd*⟩:

```
138 \newcommand*{\catpkgref}{\@double@first@arg\CatPkgRef}
139 \newcommand*{\@double@first@arg}[2]{#1{#2}{#2}}
140 \newcommand*{\CatPkgRef}[1]{%
141     \cat@ctan@pkg@ref\catalogueref{entries/#1\html}}
```

`\cat@ctan@pkg@ref`⟨*cmd*⟩`{`⟨*path*[`#`*frag*]⟩`}{`⟨*text*⟩`}` ensures that ⟨*Name*⟩ is typeset as the argument of `\pkgnamefmt` (Section 4.3). It is used in Section 7.2.8 again:

```
142 \newcommand*{\cat@ctan@pkg@ref}[3]{#1{#2}{\pkgnamefmt{#3}}}
```

Example: `\catpkgref{morehype}` for morehype

7.2.7 Domains for Other Package Descriptions

v0.6 in the spirit of Section 4.5.4 introduced an auxiliary

`\ctanorgbaseref{`⟨*path*⟩`}{`⟨*text*⟩`}`

for accessing Jim Hefferon's package descriptions, as the texlinks documentation told then. By the advent of "the new `www.ctan.org`" announced on 2012-12-12, this was falsified. `\ctanorgbaseref` formerly linked to `ctan.org`, i.e., to `www.ctan.org`. The package description pages under that domain have been changed in December and no longer call themselves "Jim Hefferon's." The latter's pages seem to stay available under `alan.smcvt.edu`. Major contentual differences at present (2013-01-21) seem to be that `www.ctan.org` classifies packages by a new concept of "**topics**," while `alan.smcvt.edu` classifies them by "**keywords**" as well as by "**characterizations**" out of which one is "primary" and others are "secondary."

In order to keep as much as possible, I introduce new `\tugctan...` and `\wwwctan...` commands. The first ones link to `alan.smcvt.edu` (see Section 7.2.2 for why), the others to `www.ctan.org`. The user may choose whether the `\ctan...` commands link to `alan.smcvt.edu` or to `www.ctan.org`.

`\tugctanorgbaseref{`⟨*path*⟩`}{`⟨*text*⟩`}` links to `alan.smcvt.edu` independently of the choice for `\ctanorgbaseref`:

```
143 \newcommand*{\tugctanorgbaseref}{\httpbaseref\tugctanorg}
```

`\wwwctanorgbaseref{⟨path⟩}{⟨text⟩}` links to `www.ctan.org` independently of the choice for `\ctanorgbaseref`:

```
144 \MakeBasedHref{\wwwctanorgbaseref}{www\ctanorg}
```

`\useTUGctanbases` lets `\ctanorgbaseref` be `\tugctanorgbaseref`:

```
145 \newcommand*{\useTUGctanbases}{\let\ctanorgbaseref\tugctanorgbaseref}
```

`\ctanorgbaseref{⟨path⟩}{⟨text⟩}` before v0.81 aimed to get Jim Hefferon's pages via `\tugctanorgbaseref` by default:

```
146 % \useTUGctanbases
```

... but that is bad when the future of `alan.smcvt.edu` is unclear. Therefore, `\useWWWctanbases` will choose `www.ctan.org` to look for package descriptions as the default instead (as of v0.81):

```
147 \newcommand*{\useWWWctanbases}{\let\ctanorgbaseref\wwwctanorgbaseref}
148 \useWWWctanbases
```

7.2.8 Single Packages without The TEX Catalogue

`\ctanpkgref{⟨pkg-name⟩}` makes ⟨*pkg-name*⟩ a link to a package info page for the package ⟨*pkg-name*⟩. `\CtanPkgRef{⟨name⟩}{⟨Name⟩}` is a variant of `\ctanpkgref` relating to the latter as `\CatPkgRef` relates to `\catpkgref` (Section 7.2.6).

```
149 \newcommand*{\ctanpkgref}{\@double@first@arg\CtanPkgRef}
150 \newcommand*{\CtanPkgRef}{\Ct@nPkgRef\ctanorgbaseref}
```

Using `\cat@ctan@pkg@ref` from Section 7.2.6:

```
151 \newcommand*{\Ct@nPkgRef}[2]{\cat@ctan@pkg@ref#1{pkg/#2}}
```

`\ctanpkgstyref{⟨name⟩}` adds '`.sty`' to the package name:

```
152 \newcommand*{\ctanpkgstyref}[1]{\CtanPkgRef{#1}{#1.sty}}
```

The previous commands for package info pages choose between `alan.smcvt.edu` and `www.ctan.org` according to `\useTUGctanbases` or `\useWWWctanbases` (i.e., `\ctanorgbaseref`, Section 7.2.7). The next commands allow that choice independently of `\ctanorgbaseref`, by contrast. `\useTUGpkgpages` may be issued to stick to the TUG package descriptions (from `\CtanPkgRef`).

```
153 \newcommand*{\TugCtanPkgRef}{\Ct@nPkgRef\tugctanorgbaseref}
154 \newcommand*{\tugctanpkgref}{\@double@first@arg\TugCtanPkgRef}
155 \newcommand*{\useTUGpkgpages}{\let\CtanPkgRef\TugCtanPkgRef}
```

After `\useWWWpkgpages`, `\CtanPkgRef` and `\ctanpkgref` use the package descriptions from `www.ctan.org` even after `\useTUGctanorgbases`:

```
\newcommand*{\WwwCtanPkgRef}{\Ct@nPkgRef\wwwctanorgbaseref}
\newcommand*{\wwwctanpkgref}{\@double@first@arg\WwwCtanPkgRef}
\newcommand*{\useWWWpkgpages}{\let\CtanPkgRef\WwwCtanPkgRef}
```

After `\useCATpkgpages`, `\CtanPkgRef` and `\ctanpkgref` use the TEX Catalogue to display package informations:

```
\newcommand*{\useCATpkgpages}{\let\CtanPkgRef\CatPkgRef}
```

Finally, we provide experimental

`\AllPkgRefs{⟨name⟩}{⟨Name⟩}` and `\allpkgrefs{⟨name⟩}`

offering choice between the three interfaces for each package. 'c' will stand for The TEX Catalogue, 't' for `alan.smcvt.edu`, and 'w' for `www.ctan.org`. After `\useALLpkgpages`, this is what `\CtanPkgRef` and `\ctanpkgref` offer:

```
\newcommand*{\AllPkgRefs}[2]{%
    \pkgnamefmt{#2}\,[\CatPkgRef{#1}{c}\textbar
                     \TugCtanPkgRef{#1}{t}\textbar
                     \WwwCtanPkgRef{#1}{w}]}
\newcommand*{\allpkgrefs}{\@double@first@arg\AllPkgRefs}
\newcommand*{\useALLpkgpages}{\let\CtanPkgRef\AllPkgRefs}
```

Example: `\allpkgrefs{morehype}` for morehype [c|t|w]

(With blog.sty, this requires some `\def\textbar{|}` TODO.)

7.2.9 Package Author Pages

Before v0.8, we told that

`\ctanpkgauref{⟨id⟩}{⟨text⟩}`

referred to a package author page—a list of all the author's packages—of Jim Hefferon's interface, provided ⟨*id*⟩ had been chosen properly. With the advent of "the new `www.ctan.org`" announced on 2012-12-12, links generated by this command stopped working altogether. For v0.8, we repaired the definition so that the claim became true again—for a few days. v0.81 changes the default, see Section 7.2.7. But "the new `www.ctan.org`" also provides its own author pages, and we offer a choice between both interfaces for the author pages. A little problem has been that the paths to these pages differ between `alan.smcvt.edu` and `www.ctan.org` now.

```
\newcommand*{\ctanpkgauref}[1]{\ctanorgbaseref{author/%
```

Only `alan.smcvt.edu` uses 'id/':

```
    \ifx\ctanorgbaseref\tugctanorgbaseref id/\fi
    #1}}
```

Example: `\ctanpkgauref{lueck}{mine}` for \ctanpkgauref{lueck}{mine}

`\tugctanpkgauref{`⟨*id*⟩`}{`⟨*text*⟩`}` chooses Jim Hefferon's author pages even if `www.ctan.org` has been chosen to be the main interface for package descriptions (Section 7.2.7):

```
169 \newcommand*{\tugctanpkgauref}[1]{\tugctanorgbaseref{author/id/#1}}
```

Example: `\tugctanpkgauref{lueck}{mine}` for \tugctanpkgauref{lueck}{mine}

`\wwwctanpkgauref{`⟨*id*⟩`}{`⟨*text*⟩`}` chooses the new `www.ctan.org`'s author pages even if `alan.smcvt.edu` has been chosen to be the main interface for package descriptions (Section 7.2.7):

```
170 \newcommand*{\wwwctanpkgauref}[1]{\wwwctanorgbaseref{author/#1}}
```

Example: `\wwwctanpkgauref{lueck}{mine}` for \wwwctanpkgauref{lueck}{mine}

By the default settings as of v0.81, `\wwwctanpkgauref` is equivalent to `\ctanpkgauref`. To change this, issue

```
\renewcommand{\ctanpkgauref}{\tugctanpkgauref}
```

7.2.10 Other Ways to Search for Packages

`\ctanpkgtopicref{`⟨*topic-id*⟩`}{`⟨*text*⟩`}` accesses a list of packages belonging to the "topic" with identifier ⟨*topic-id*⟩.

```
171 \newcommand*{\ctanpkgtopicref}[1]{\wwwctanorgbaseref{topic/#1}}
```

Example: `\ctanpkgtopicref{cvt-html}{make HTML}` for \ctanpkgtopicref{cvt-html}{make HTML}

`alan.smcvt.edu` and `www.ctan.org` offer more pages for which I don't create own macros, while I use some of them on a page collecting my favourite links. They are accessed either by `\tugctanorgbaseref{`⟨*path*⟩`}`—resulting in `tug.ctan.org/`⟨*path*⟩—or by `\wwwctanorgbaseref{`⟨*path*⟩`}`—resulting in `www.ctan.org/`⟨*path*⟩. I am listing a few.

- On `www.ctan.org/author`, you can browse package authors. I could not find an equivalent page under `alan.smcvt.edu`.
- `alan.smcvt.edu/search` and `www.ctan.org/search` offer different criteria for searches.
- On `www.ctan.org/topic`, you can browse topics. This page in fact is accessed by `\ctanpkgtopicref{}` (⟨*topic-id*⟩ empty). Jim Hefferon's keywords can be browsed on

  `alan.smcvt.edu/keywords`.

  His characterizations can be browsed from

  `alan.smcvt.edu/characterization/choose_dimen`.

- `alan.smcvt.edu/pkg` is a single page listing all package identifiers ⟨*pkg-id*⟩ (for `\ctanpkgref{`⟨*pkg-id*⟩`}`, as links). `www.ctan.org/pkg` just offers a link alphabet for pages of packages that share their first letter (in the identifier).

7.3 Mailing Lists

v0.7 relies on package langcode for `\enmonthname{`⟨*month-number*⟩`}` and `\demonthname{`⟨*month-number*⟩`}`, for tricks with language codes extending those in Section 6.5:

```
\RequirePackage{langcode}
```

The next definitions are backbones for generating links to web pages about TEX mailing lists. `\TL@piper@parse`⟨*year*⟩`-`⟨*month-number*⟩`-`⟨*id*⟩ will be used for referring to single postings:

```
\def\TL@piper@parse#1-#2-#3/{#1-\enmonthname{#2}/#3}
```

`\texlistyearmonthref`⟨*list-ref*⟩`{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

will generate ⟨*list-ref*⟩`{`⟨*path*⟩`}` for linking to the list of postings of the ⟨*month-no*⟩th month in the year 20⟨*2-digits*⟩:

```
\newcommand*{\texlistyearmonthref}[2]{\texlist@yearmonthref#1#2\@nil}
\def\texlist@yearmonthref#1#2-#3\@nil{#1{20#2-\enmonthname{#3}}}
```

'⟨*path*⟩' will be '20⟨*2-digits*⟩`-`⟨*month*⟩', and ⟨*month*⟩ will be the *English* name of the ⟨*month-no*⟩th month of the year.

`\texlanglistmonthref`⟨*month-cmd*⟩⟨*list-ref*⟩`{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

will generate ⟨*list-ref*⟩`{`⟨*path*⟩`}{`⟨*month*⟩`}` where ⟨*month*⟩ is determined from ⟨*month-no*⟩ by ⟨*month-cmd*⟩:

```
\newcommand*{\texlanglistmonthref}[3]{\texlanglistm@nthref#1#2#3\@nil}
\def\texlanglistm@nthref#1#2#3-#4\@nil{%
    #2{20#3-\enmonthname{#4}}{#1{#4}}}
```

`\detexlistmonthref`⟨*list-ref*⟩`{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}` now could be used for ⟨*list-ref*⟩`{`⟨*path*⟩`}{`⟨*month*⟩`}` *German* ⟨*month*⟩ ...

```
\newcommand*{\detexlistmonthref}{\texlanglistmonthref\demonthname}
```

... as could be `\entexlistmonthref`⟨*list-ref*⟩`{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}` for *English* ⟨*month*⟩ ...

```
\newcommand*{\entexlistmonthref}{\texlanglistmonthref\enmonthname}
```

With proper use of langcode however,

`\texlistmonthref`⟨*list-ref*⟩`{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

automatically chooses between English and German ⟨*month*⟩ (according to intention ...):

```
\newcommand*{\texlistmonthref}{\texlanglistmonthref\monthname}
```

7.4 CTAN Announcements

`\ctanannref{`⟨*id*⟩`}{`⟨*text*⟩`}` makes ⟨*text*⟩ a link to the DANTE web page displaying a CTAN announcement. You find ⟨*id*⟩ by searching

`https://lists.dante.de/pipermail/ctan-ann/`

and then reading the URL. ⟨*id*⟩ is composed as

⟨*year*⟩`-`⟨*month*⟩`/`⟨*6-digits*⟩`.html`

where ⟨*year*⟩ consists of 4 digits and ⟨*month*⟩ is an *English* month name:

```
\newcommand*{\ctanannref}[1]{%
    \httpsref{lists.dante.de/pipermail/ctan-ann/#1}}
```

`\ctanannpref{`⟨*id-code*⟩`}{`⟨*text*⟩`}` is a variant of `\ctanannref` where in place of ⟨*id*⟩ you only type the third and fourth digit of the year (⟨*2-digits*⟩), then a '`-`', then the (arabic) number ⟨*month-no*⟩ of the month (cf. Section 7.3 so far), then another '`-`', and then the actual internal identifier ⟨*running-no*⟩ (a number of six digits preceding '`.html`' of the URL). I.e., '⟨*id-code*⟩' is '⟨*2-digits*⟩`-`⟨*month-no*⟩`-`⟨*running-no*⟩'.

```
\newcommand*{\ctanannpref}[1]{%
    \ctanannref{20\TL@piper@parse#1/\html}}          %% '20' 2012/12/08
```

`\ctanannyearmonthref{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

generates `\ctanannref{`⟨*path*⟩`}` from '⟨*2-digits*⟩`-`⟨*month-no*⟩'—⟨*path*⟩ as in Section 7.3 ...

```
\newcommand*{\ctanannyearmonthref}{\texlistyearmonthref\ctanannref}
```

`\ctanannmonthref{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

generates `\ctanannref{`⟨*path*⟩`}{`⟨*month*⟩`}` where ⟨*month*⟩ obeys `\langcode` ...

```
\newcommand*{\ctanannmonthref}{\texlistmonthref\ctanannref}
```

7.5 ...stack... Forums

`\stackexref{`⟨*id-no*⟩`}{`⟨*text*⟩`}` shows exchange about Question No. ⟨*id-no*⟩ on `tex.stackexchange.com`. ⟨*id-no*⟩ is the number following '`/questions/`' in the URL (the part of the URL reflecting the caption are not needed). See an example from ⟨*id-no*⟩ = 84878 in Section 6.1.

```
\newcommand*{\stackexref}{\stackquestionref{tex.stackexchange}}
\newcommand*{\stackquestionref}[2]{\httpref{#1.com/questions/#2}}
```

Likewise, `\stackoverref{`⟨*id-no*⟩`}{`⟨*text*⟩`}` links to `stackoverflow.com` (⟨*id-no*⟩ = 2118972 is about file dates):

```
\newcommand*{\stackoverref}{\stackquestionref{stackoverflow}}
```

7.6 TUG

`\tugref{`⟨*path*⟩`}{`⟨*text*⟩`}` makes ⟨*text*⟩ a link to ⟨*path*⟩ on domain `tug.org`:

```
191  \MakeBasedHref{\tugref}{tug.org}
```

7.6.1 texhax

`\texhaxref{`⟨*id*⟩`}{`⟨*text*⟩`}` makes ⟨*text*⟩ a link to the TUG web page displaying a texhax posting. You find ⟨*id*⟩ by searching `tug.org/pipermail/texhax/` and then reading the URL. ⟨*id*⟩ is composed as ⟨*year*⟩`-`⟨*month*⟩`/`⟨*6-digits*⟩`.html`.

```
192  \newcommand*{\texhaxref}[1]{\tugref{pipermail/texhax/#1}}
```

`\THref{`⟨*id*⟩`}` saves you from choosing ⟨*text*⟩ and uses `texhax` instead.

```
193  \newcommand*{\THref}[1]{\texhaxref{#1}{texhax}}
```

(It was `\prg{texhax}` in blog.sty, to have something logo-like, without a good idea how to implement it.)

`\texhaxpref{`⟨*id-code*⟩`}{`⟨*text*⟩`}` is a variant of `\texhaxref` where in place of ⟨*id*⟩ you only type the third and fourth digit of the year, then a `-`, then the (arabic) number of the month, then another `-`, and then the actual internal identifier (a number of six digits preceding `.html` of the URL). I made this macro because I prefer typing to copying from the URL.

```
194  \newcommand*{\texhaxpref}[1]{%              %% 2010/09/07
195      \texhaxref{20\TL@piper@parse#1/\html}}  %% 2011/05/03
```

TODO: `\texhaxPref#1` searches list of offsets to determine year/month from id ...

`\texhaxyearmonthref{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

generates `\texhaxref{`⟨*path*⟩`}` from '⟨*2-digits*⟩`-`⟨*month-no*⟩'—⟨*path*⟩ as in Section 7.3 ...

```
196  \newcommand*{\texhaxyearmonthref}{\texlistyearmonthref\texhaxref}
```

`\texhaxmonthref{`⟨*2-digits*⟩`-`⟨*month-no*⟩`}`

generates `\texhaxref{`⟨*path*⟩`}{`⟨*month*⟩`}` where ⟨*month*⟩ obeys `\langcode` ...

```
197  \newcommand*{\texhaxmonthref}{\texlistmonthref\texhaxref}
```

7.6.2 Other

`\tugbartref{tb`⟨*vol*⟩`-`⟨*issue*⟩`/`⟨*filename-base*⟩`}{`⟨*text*⟩`}` makes ⟨*text*⟩ a link to the TUGboat article ⟨*filename-base*⟩`.pdf` in vol. ⟨*vol*⟩ and issue ⟨*issue*⟩:

```
198  % \newcommand*{\tugbartref}[1]{\tugref{TUGboat/Articles/#1.pdf}}
199  \newcommand*{\tugbartref}[1]{\tugref{TUGboat/#1.pdf}}
```

`\tugiref{⟨anchor⟩}{⟨text⟩}` makes ⟨*text*⟩ a link to an ⟨*anchor*⟩ on the TUG web page entitled 'TeX Resources on the Web' (e.g., ⟨*anchor*⟩ = '`web`' shows the section entitled 'TEX web projects'):

```
\newcommand*{\tugiref}[1]{\tugref{interest\html\##1}}
```

It was `\TUGIref` until v0.6, we keep this for compatibility (deprecated):

```
\newlet\TUGIref\tugiref
```

7.7 UK FAQ

`\ukfaqref{⟨label⟩}{⟨text⟩}` makes ⟨*text*⟩ a link to the UK TEX FAQ page with "label" = ⟨*label*⟩:

```
\newcommand*{\ukfaqref}[1]{\httpref{%
    www.tex.ac.uk/cgi-bin/texfaq2html?label=#1}}
```

7.8 Wikibooks

`\wikilangbooksref{⟨language-code⟩}{⟨book⟩/⟨subject⟩}{⟨text⟩}`

```
\newcommand*{\wikilangbooksref}[1]{%        %% 'lang' 2012/01/06
    \httpbaseref{#1.wikibooks.org/wiki}}
```

`\latexwikibookref{⟨subject⟩}{⟨text⟩}` refers to the (English) *LATEX* wikibook:

```
\newcommand*{\latexwikibookref}[1]{\wikilangbooksref{en}{LaTeX/#1}}
```

The German LATEX-Kompendium is somewhat difficult, I leave it for now ...

`\texwikibookref{⟨subject⟩}{⟨text⟩}` refers to the *TEX* wikibook. E.g., ⟨*subject*⟩ may access a description of the TEX *primitive* \⟨*subject*⟩, such as `\texwikibookref{if}{\cs{if}}` for `\if`. However, some primitives have not been described yet, and the whole TEX wikibook largely is just a list of what needs to be done.

```
\newcommand*{\texwikibookref}[1]{\wikilangbooksref{en}{TeX/#1}}
```

8 Leaving and Version HISTORY

```
\endinput
```

VERSION HISTORY

```
v0.1    2011/01/24  new file, code from blog.sty v0.3
v0.2    2011/01/27  \urlfoot, \NormalHTTPref, \foothttpurlref,
                    "outline" adjusted;
                    more consistent use of \newcommand and
                    \@ifdefinable (TODO: guarded \let)
v0.3    2011/02/10  [blog]; \urlpkgfoot
```

```
v0.4    2011/04/27  doc. \tugbartref\ corrected
        2011/04/30  shortened link in \tugbartref
        2011/05/03  \TL@piper@parse, tried \ctanannref
        2011/05/13  reworking Wikipedia, arbitrary languages
        2011/06/27  doc.: \acro; \httpsref, \ctanannref
        2011/07/23  doc.: typo \acro{TUG}, 'Almost all', page breaks;
                    \Wikidisambref: different order of arg.s
        2011/08/18  doc.: \acro with UK; wikibooks
        2011/08/27  doc. \acro with URL and PDF;
                    more doc and code changes for https
uploaded with MOREHYPE r0.4 (not touched by r0.41)
v0.41   2011/09/03  doc.: more specific on \urluml/Wikipedia
        2011/10/06  \mirrorctanref, \tugctanfileref,
                    \mirrorctanfileref, \ltxcontrib
        2011/10/10  doc. formatting of previous
uploaded with MOREHYPE r0.5(1)
v0.5    2011/10/19  doc. fix LaTeX Wikibook
        2011/10/20  \urlfmt, \filenamefmt and \pkgnamefmt
                    changed and moved, modified doc. on them,
                    doc. uses \URL
        2011/10/21  re-order CTAN, \pagebreak's, \ctanref and
                    choice for it, doc. modified; rm. \ithttpref
uploaded with MOREHYPE r0.52
v0.6    2012/01/06  \wikilangref etc., \wikiref etc. depend on
                    \langcode
        2012/01/11  removed old comments for Wikipedia; (C)
        2012/03/09  "URL bases" (\httpbaseref etc.), applied;
                    \bytopicref uses \mirrorctanref
        2012/03/12  fixed \texhaxref
        2012/04/09  \ctanorgbaseref, \ctanpkgauref
        2012/04/10  makedoc link works!
        2012/05/13  example for \wikilangref corrected
uploaded with MOREHYPE r0.6
v0.7    2012/07/23  doc.: <text>
        2012/08/05  \tugiref
        2012/10/04  doc. wikibooks: ref
        2012/10/24  ...monthref... requiring 'langcode.sty', moving
                    links to mailing list pages from 'texblog.fdf'
                    here; doc.: \pagebreak s, wikibooks: <book>...,
                    corr. args, \wikiref refers to 'langcode.sty',
                    'ref', using \qtdcode (new in 'makedoc.cfg')
        2012/11/08  doc.: Jim corr.
        2012/11/27  \ctanpkgstyref from 'texblog.fdf'
        2012/11/28  [[...|...]]
uploaded with MOREHYPE r0.7
v0.7a   2012/12/01  link fix "Piped link"
        -> r0.7a
v0.7b   2012/12/06  there again: blogexec -> markblog, above entry ...
        -> r0.7b
v0.71   2012/12/08  \ctanannpref like \texhaxpref
```

```
265           -> r0.71
266   v0.8    2012/12/15  \domainref from ‘texblog.fdf’
267                       doc.: \secref, gathering first subsections in
268                       new section "Links in General"
269           2012/12/16  \texwikibooksref; \domainref 1 code line,
270                       mod. doc. LaTeX wikibook
271           2012/12/17  \google..., \stackexref, \catalogueref;
272                       doc.: todo done + corr. in sec:bases,
273                       wiki extended, suffix -> tag
274           2012/12/18  \cataloguestartref, \html
275           2012/12/19  \cat@ctan@pkg@ref, \@double@first@arg;
276                       doc. uses {example}, \fbox, etc.
277           2012/12/20  \ctanpkgtopicref
278           -> r0.8
279   v0.81   2012/12/28  doc.: "fonts" \provide, corr. \pkgnamefmt,
280                       reworked \urlfoot
281           2012/12/29  \tugctanorg; doc.: TODO on "fonts",
282                       more on Jim ... \tugctanorg
283           2012/12/30  ... in sec:search-pkg; mod. doc. \ctanpkgauref,
284                       more doc. wiki "overview", \simplecodefbox etc.,
285           2012/12/31  doc. "the" Welcome ...
286           -> r0.81
287   v0.82   2013/01/18  \tugctanorg -> alan.smcvt.edu
288           2013/01/19  reworking doc. on CTAN; \pagebreak
289           2013/01/20  updated (C), reworking doc. on CTAN
290           2013/01/21  \MakeBasedHref, \wwwctanref, \usewwwctan,
291                       \newlet; doc.: typo fix, updated sec:x.ctan.org
292           2013/01/21  applying \newlet, \myctanref, \usemyctan,
293                       \ctanfileref reimplemented, \filectanref,
294                       \dirctanref; doc.: \ltxcontrib with {example}
295
```