Improved reference formatting for LaTeX2e

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There is a significant change to the newrefformat command in version 3.0. Please see the new discussion of that command below.

This package has been completely reimplemented (in version 2.0). Please note the user level commands have changed syntax. This was done because most of the packages providing hypertext/www functionality (such as, `hyper`, `hyperref` and `latex2html`) also modify the `\newlabel` structure. In order to make this package compatable with those, I have decided not to change the `\newlabel` structure, but have the refence type stored in the label name.

This package provides additional functionality to LaTeX2e label–reference mechanism. It allows the author to "preformat" all types of labels.

A long standing problem with LaTeX `\ref` command is that it only provides a raw number. The author is responsible for properly formatting the number correctly. For example, in order to correctly format a reference to an equation, the author must use `\textup{(\ref{eq:1})}`. Or similarly for a figure, `Figure~(\ref{fig:2})`. This way the "format" of the reference is hard coded into the paper. If the author decides to change figure references to `Figure~\ref{fig:2}`, she must search and replace all the strings in the tex source.

AMSLaTeX has partially addressed this problem by providing the package `upref` and command `\eqref` in `amsmath`. This is a partial solution for equation numbers and forces equation numbers in upright style.

This package provides a more comprehensive solution by allowing the author to define various formats for the labels. For example, to label a table the author would use `\label{tab:1}`. To access the formatted reference the author uses `\prettyref{tab:1}`. `\pageref{tab:1}` and `\ref{tab:1}` work as usual.

`\prettyref` is robust enough to be used within `\caption` and in `theorem` optional arguements.

Labels in the document must be of the form `format:name` where the string `format` is used to determine the format. Do not use the character `:` anywhere within the label except to seperate `format` from `name`. `format:name` must be unique for it is used as the label.

```
1 \ProvidesPackage{prettyref}[1998/07/09 v3.0]
```

`\newrefformat` The command `\newrefformat` defines formats for pretty references.

Usage: `\newrefformat{NAME}{FORMAT}`

The `NAME` arguement is the name of the refernece type.

The `FORMAT` argument is interpreted as the replacement text for an internal one-argument function. The `#1` will be replaced with the label name.

```
2 \def\newrefformat#1#2{%
```

```
  \@namedef{pr@#1}##1{#2}}
```

These define the default formats for table, eq, lemma, thm, section, and figure. They also demonstrate the useage of `\newrefformat`.

```
\newrefformat{eq}{\textup{(\ref{#1})}}
\newrefformat{lem}{Lemma \ref{#1}}
\newrefformat{thm}{Theorem \ref{#1}}
\newrefformat{cha}{Chapter \ref{#1}}
\newrefformat{sec}{Section \ref{#1}}
\newrefformat{tab}{Table \ref{#1} on page \pageref{#1}}
\newrefformat{fig}{Figure \ref{#1} on page \pageref{#1}}
```

`\prettyref` The character `:` is used as a seperator. It must be appended to the label string to terminate the `name` portion.

```
\def\prettyref#1{\@prettyref#1:}
```

`\@prettyref` The internal macro `\@prettyref` does all the work. It takes two arguements delimited by `:`. The first arguement is the format name. If the format has not been defined, a warning is issued and `\ref` is used. Otherwise, the reference is formatted. `\@prettyref` uses the LaTeX macros `\ref` and `\pageref` to access the `\newlabel` data structure. Hopefully this makes the package robust enough to use with various other pacakges.

```
\def\@prettyref#1:#2:{%
  \expandafter\ifx\csname pr@#1\endcsname\relax%
    \PackageWarning{prettyref}{Reference format #1\space undefined}%
    \ref{#1:#2}%
  \else%
    \csname pr@#1\endcsname{#1:#2}%
  \fi%
}
```