gindex

Formatting indexes with LaTeX

Version 0.2 (2019-10-07)

`https://github.com/jbezos/gindex`

Javier Bezos (`http://www.texnia.com`)

This package works in conjunction with a **g**eneric `ist` file, which provides a way to **g**enerate the format of index entries from within LaTeX. With standard classes, it works out of the box with some predefined values, which you can (and in fact should) redefine with `\renewcommand`.

Note it is version 0.2. Changes of the existing features are unlikely to happen (but who knows), but new features, on the other hand, will be added in the near future.

What it does is to generate blocks like this for each first-level entry:

```
\setcounter{indexsubitems}{2}%      The number of subitems
\indexitem{blah1}{1}%
  \indexsubitem{subblah1}{3}%
  \indexsubitem{subblah2}{5}%
\indexnoitem{}{}%                   Usually dummy
```

As you can see, when `\indexitem` is executed, you know the number of subitems, which is necessary for some styles.

The default values are:

```
\newcommand\indexitem[2]{\item #1\ifx\\#2\\\else, #2\fi}
\newcommand\indexsubitem[2]{\subitem #1\ifx\\#2\\\else, #2\fi}
\newcommand\indexsubsubitem[2]{\subsubitem #1\ifx\\#2\\\else, #2\fi}
```

For example, to replace the comma by a quad:

```
\renewcommand\indexitem[2]{\item #1\ifx\\#2\\\else\quad #2\fi}
```

It is guaranteed that these command can take up to 5 arguments. If you define `\indexitem` with all of them, the parameters in the previous example will be:

1. `blah1`

2. `1`

3. `\indexsubitem`

4. `subblah1`

5. `3`

This explains the line `\indexnoitem{}{}` above, which by default does nothing. By inspecting the third parameter you decide how to format the current parameter (of

course, in most cases you must emit it again at the end of your definition of `\indexitem`).

Subsubitems are allowed, but not counted. Only subitems are counted.

There is a tool to define the most usual entry format, which is used in the following way:

```
\renewcommand\indexitem[2]{%
  \indexitemhang{0pt}%      First line left margin
            {10pt}%      Second, third...  lines left margin
            {}%          After entry if no locator
            {: }%        Entry-locator separator
            {#1}%        Entry
            {#2}}%       Locator
```

Other macros are:

- `\indexpreamble`, executed just after `\begin{theindex}` (`\relax` by default).

- `\indexpostamble`, executed before `\end{theindex}` (`\relax` by default).

- `\indexskip`, which is `\indexspace` by default, with similar purpose.

- `\indexheading`, is defined as follows:

  ```
  \newcommand\indexheading[1]{%
    {\bfseries\hfil
     \MakeUppercase{#1}%
     \hfil}%
    \nopagebreak}
  ```

- `\indexrangesep`, which by default is -.

- `\indexpagessep`, which by default is , .

Remember to set the style to `gindex` when running `makeindex`:

```
makeindex -s gindex yourfile
```

Note also there is no need to run `makeindex` to fine tune the format.

EXAMPLE With the following definitions, items and subitems are typeset, as usual, as separate paragraphs. However, if the item has no locator, and there is exactly one subitem, they are joined with a comma as separator (the code is somewhat low-level):

```
\renewcommand\indexitem[5]{%
  \def\next{%
    \indexitemhang{0pt}{20pt}{:}{, }{#1}{#2}%
    #3{#4}{#5}}%
  \ifnum\value{indexsubitems}=1\relax
    \ifx\\#2\\%
      \def\next{%
        \indexitemhang{0pt}{20pt}{:}{, }{#1, #4}{#5}}%
    \fi
  \fi
  \next}

\renewcommand\indexsubitem[2]{%
  \indexitemhang{0pt}{40pt}{}{, }{--- #1}{#2}}
```

1 Internals

The ind files is generated by `gindex.ist` with generic macros like:

```
\addindexitem{bla1}{1}
  \addindexsubitem{subbla1}{3}
  \addindexsubitem{subbla2}{5}
```

What `gindex` does is to convert them to the above format. Some parameters should be cuntomized in the `ist` file, however. These are:

```
headings_flag    -1
actual           '@'
quote            '"'
level            '!'
page_precedence  "rRnaA"
keyword          "\\indexentry"
```

As to `headings_flag`, the recommended way to deal with case is with `\indexheading`.