Page Layout for Research Journals

Author
Andrew Lincoln Burrow
albcorp@gmail.com

Abstract
The AlbJournalLayout package provides a single alb-journal LaTeX document class. The class implements a book design for research journals that is designed to allow the collection of citations and notes, where each journal entry is recorded under a date. It sets up the page layout and section formatting. It also provides a single additional LaTeX environment to markup a research note.

Version Information
Revision
Date

1 Introduction

The `AlbJournalLayout` package is designed to assist in the keeping of research journals. It consists of a single document class `alb-journal`. In particular, it designed to achieve consistency and to provide guidance when writing research journals.

The document class sets the document appearance, so that sectioning commands and citations produce a well designed reference that is easy to browse. This is achieved through the `natbib` and `chapterbib` LaTeX packages, and by assuming that the chapter titles are dates. The page layout provides a wide external margin. Into this margin is set the current chapter title. Hence, if each chapter title is a date of the form *01 MAR 2005*, it is a simple matter to browse the dates in the bound document. The page number is placed directly under the outer edge of the text, and appears on all pages including the first page in each chapter. Finally, it is easy to arrange the bibliography at the end of each chapter with the LaTeX package `chapterbib`, to produce an index of citations by name at the end of the document with the LaTeX package `natbib`, and to use the glossary command to add indexed keywords to each research note.

2 Suggested Document Structure

To enjoy the benefits of the `alb-journal` document class, the document structure must conform to certain rules. Additional steps, suggested here, will make the system easy to use. These guidelines are presented here in terms of page layout options, preamble commands, and document structure.

2.1 Page Layout Options

The `alb-journal` document class attempts to respect page layout options. In particular, you can use `oneside`, and `twoside`. It makes little sense to declare a large document `notitlepage`. Furthermore, the page layout will not accomodate `twocolumn` or `reversemp`. The page layout accomodates `a4paper` and `letterpaper` page sizes.

Page layout options must be placed in the `documentclass` declaration, and each relevant option should be explicitly declared since the `AlbLaTeXDocumentTemplate` makefile parses document class options. The following content is a typical example of the document class declaration.

```
\documentclass[11pt,a4paper,oneside,titlepage]{alb-corp}
```

2.2 Indexing Commands

The excellent `natbib` and `chapterbib` LaTeX packages are recommended, along with the setup of the keyword and citation indices.

The packages are included by the following preamble commands.

```
\usepackage[sectionbib]{natbib}
\usepackage{chapterbib}
\usepackage{url}
```

The `sectionbib` option ensures that the bibliography is placed under a section rather than a chapter, so that each entry should itself be organised into a chapter.

The `url` package improves the typesetting of URLs, which are increasingly common in bibliographic material.

The keyword and citation indices are setup by the following preamble commands.

```
\citeindextrue
\makeglossary
\makeindex
```

The `\citeindextrue` command causes each citation to generate an index entry and the author of the cited work.

2.3 Document Structure

In order to generate a bibliography for each journal entry, it is necessary to divide each journal entry into its own file and chapter. The master document includes these entry files, along with the files defining the title page, table of contents, and indices. It is best to make chapter titles and filenames agree, and to base these names on the date of the journal entry.

The following examples shows such a document structure. The master file contains the preamble and the following document environment, where the list of included files in the main matter section varies.

```
\begin{document}
  \frontmatter
  \include{title_page}
  \include{table_cont}

  \mainmatter
  \include{read_01_mar_2005}
  \include{read_03_apr_2005}

  \backmatter
  \include{indic}
\end{document}
```

The title page is up to the author, but the contents page is a very simple file containing only the following command.

```
\tableofcontents
```

Likewise, the index is a very simple file containing only the following commands.

```
\chapter{Keyword Index}
\printglossary

\chapter{Citation Index}
\printindex
```

The document structure is completed by the inclusion of journal entries. Each journal entry is a file that must be included by the master document. It begins with a chapter heading indicating the date, and concludes with commands to generate a biblography in the chapter. Research notes are marked up via the `albResearchNote` environment described in Section 3.

The following content is a minimal example of a chapter. The use of `chapter` to markup the date is mandatory, but the choice of sectioning to set out the themes is up to the author. Finally, the bibliography commands are required in each chapter, and the style must be consistent throughout the document.

```
\chapter{01 MAR 2005}

Papers collected in the preparation of the grant application.

\section{Wiki Research at SIAL}

\begin{albResearchNote}%
    {\citet{burrow04:_negot_acces_wiki}}%
    {\glossary{wiki}, \glossary{access~rules}}
\item Describes the negotiation of access rules in wiki
\end{albResearchNote}

\bibliographystyle{plainnat}
\bibliography{alb-bibliography}
```

3 Using the Commands and Environments

The single `albResearchNote` list environment of the `alb-journal` concerns the markup of notes for a source.

`\begin{albResearchNote}{`*source*`}{`*keywords*`}` Typeset a research note identified by a citation and tagged with a collection of keywords. The first argument should contain a `\citet` command. The second argument should contain `\glossary` commands. The environment generates typeset output for `\glossary` commands in the second argument, but does not parse structure in the entry. Therefore, use only simple glossary entries in this context, and write phrases using `~` as a separator character.

An important note from Booth et al. (2003, p99)

> "Clearly and unambiguously distinguish four kinds of references: what you quote directly, what you paraphrase, what you summarize, and what you write as your own thoughts."

4 Makefile Targets

Given documents of the `alb-journal` class are expected to contain an index, it makes good sense to use the makefile from the `AlbLaTeXDocumentTemplate` makefile. This makefile will detect the existence of index commands and take the appropriate steps. The target `all` is a synonym for `idx`, which generates the final PDF document such that the index references are correct.

References

Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams. *The Craft of Research*. University of Chicago Press, second edition, 2003. ISBN 0226065677.