Departmental Styles for LaTeX

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Departmental Guide 13

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Abstract

This guide describes the University of Rochester Computer Science Department styles and macros for LaTeX users.

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1 Introduction

This guide describes the University of Rochester Computer Science Department styles for the LaTeX macro package [Lamport, 1986a] for the TeX text formatter [Knuth, 1986]. This guide will only discuss those features unique to these styles. This guide assumes knowledge of LaTeX. For information related to our local installation of TeX, see [Lamport, 1986b].

Section 2 describes the two technical report styles, `urcsreport` and `urcsmanual`. Section 3 describes the technical report cover style, `urcscover`. Section 4 describes the research summary style, `urcssummary`. Section 4 describes the research summary cover style, `urcscoverrs`. Section 6 describes the thesis style, `urcsthesis`. Section 7 describes bibliography handling for the local bibliography styles, `urcsbiblio` and `urcsbiblianno`. Section 8 describes macros common to all styles. Section 9 describes the miscellaneous useful facilities.

This guide uses the technical report style `urcsreport` described. As a result, you may look at the source of this document for hints. The source resides in `urcsstyles.tex` and `urcsstyles.bib` within `/usr/lib/tex/macros`.

2 Technical Report Styles

The technical report styles (`urcsreport` and `urcsmanual`) are for departmental technical reports, departmental guides, and Butterfly Project Reports. Examples are at the end of the section.

The `urcsreport` style is an option of the standard `article` style. Use the `11pt` and `twoside` options as well. Do not use the `twocolumn` option. For very large reports, such as manuals, the `urcsmanual` style is better. It is an option of the standard `report` style. Use the `11pt` and `twoside` options as well. Do not use the `twocolumn` option. The `urcsmanual` style provides chapters, tables of contents, lists of figures, and lists of tables where the `urcsreport` style does not. Otherwise, the two styles are the same.

The `\title` and `\author` commands are the same. They are required. Authors are separated with the `\and` command. When author lists are split badly across lines see section 8.4. You should not put in any addresses, just names. Authors who are not members of the department should place their addresses in a footnote using the `\thanks` command.

The style automatically puts in the Computer Science Department and its address. Use the command `\techrepdept` to change the department or address.

The command `\TR` indicates the technical report number. For Butterfly Project Reports, use the command `\BPR`. For Departmental Guides, use the command `\GUIDE`. These commands accept arbitrary strings. If none of these are specified, the style assumes a technical report and uses `DRAFT` for the report number. These commands are built from the `\techrepname` and `\techrepnum` commands which change the report name and report number respectively.

The command `\funding` indicates the funding sources for the work described in the report. If it is not present, the department is listed as the funding source.

After these commands comes the `\maketitle` command.

The next entry is the `abstract` environment. If there is no abstract, the command `\noabstract` must be used instead to avoid an incorrect title page.

In the `urcsmanual` style, after the abstract, place the `\tableofcontents`, `\listoftables` and `\listoffigures` commands.

The `\bibliographystyle` and `\bibliography` commands come before the appendicies.

For example,

```
\documentstyle[urcsbiblio,twoside,11pt,urcsreport]{article}
\begin{document}
\title{A Short Paper}
\author{U. R. Author}
\funding{This work was not funded by NSF grant 1.}
\BPR{20 (revised)}
\maketitle
\begin{abstract}
This is a very short paper.
\end{abstract}
\section{Exciting Text}
The entire paper.
\bibliographystyle{urcsbiblio}
\bibliography{bibdatabase}
\appendix
\section{Boring Detail}
Well, not really.
\end{document}
```

Some examples modifying defaults are:

```
\techrepdept{The University of Rochester\\
Psychology Department\\Rochester, New York\hspace{1em}14627}
\techrepname{Rodent Racing Report}
\techrepnum{99}
\maketitle
```

3 Technical Report Cover Style

The `urcscover` style provides the cover for Technical Reports, Butterfly Project Reports, and Departmental Guides. Examples are at the end of the section.

The `urcscover` style is an option of the standard `article` style. Use the `11pt` option as well. Do not use any other options.

The `\title`, `\author`, `\TR`, `\BPR`, `\GUIDE`, `\techrepname`, and `\techrepnum` commands described in the section on technical reports are the same. Use the command `\makecover` instead of `\maketitle`. For example,

```
\documentstyle[11pt,urcscover]{article}
\begin{document}
\title{Designing a Logo for\\URCS Technical Reports}
\author{Ken Yap}
\TR{999}
\makecover
\end{document}
```

4 Research Summary Style

The `urcssummary` style is for departmental research summaries. An examples is at the end of the section.

The `urcssummary` style is an option of the standard `article` style. Use the `12pt` and `urcsbiblio` options as well. Do not use any other options.

The `\title` and `\author` commands are the same. They are required. The author field should contain your name, year in residence, academic status, and supervisor. The year is one of `First Year`, `Second Year`, *etc.*, The academic status is one of `Student`, `Qualified`, and `PhD Candidate`. Use the following format:

```
\author{A. Busy Student\\Second Year, Qualified
\\Advisor: Sage N. Counsellor}
```

Use the `\section*` command instead of the `\section` command. The two sections, Research and Support, may not necessarily both appear. If you have done work in only one catagory, list only that catagory.

An example:

```
\documentstyle[urcsbiblio,12pt,urcssummary]{article}
\begin{document}
\title{Main Resarch Areas}
\author{A. Busy Student\\Second Year, Qualified
\\Advisor: Sage N. Counsellor}
\maketitle
\section*{Research}
All the nifty research things go here.
\section*{Support}
List those things that support departmental research
and public relations, but are not themselves research.
\bibliographystyle{urcsbiblio}
\bibliography{bibdatabase}
\end{document}
```

5 Research Summary Cover Style

The `urcscoverrs` style provides the cover for an issue of student research summaries. An example is at the end of the section.

The `urcscoverrs` style is an option of the standard `article` style. Use the `11pt` option as well. Do not use any other options.

There are two commands: `\rsvolume` takes the volume number as an argument; and `\rsnumber` takes the issue number as an argument. The `\date` command is the same. The `\title` and `\author` commands do not apply. Use the command `\makecover` instead of `\maketitle`. For example,

```
\documentstyle[11pt,urcscoverrs]{article}
\begin{document}
\rsvolume{3}
\rsnumber{2}
\date{July 1988}
\makecover
\end{document}
```

6 Thesis Style

NOTE: THIS SECTION IS PRELIMINARY. The formatting of the style is likely to change somewhat. However, the command set documented here probably will not change. The thesis style mostly follows the guidelines outlined in [Rochester, 1978], which is under review for update. You should read this manual before writing the thesis. However, some of the guidelines are ugly or unreasonable, so this style chooses a more reasonable set under the assumption that they will change. In the meantime, Dean Thomas has indicated that this style is acceptable. An example is at the end of the section.

The `urcsthesis` style is an option of the standard `report` style. Use the `12pt` option. Do not use the `twocolumn` option. For distributing drafts, you may find it convenient to use the `twoside` option as well. For drafts, you will also find it helpful to change the date with `\dateWDMY` or `\dateWMDY`.

The `\title` and `\author` commands are the same. They are required. There should be a single author for the thesis, with no other information. The author name should be the full name and must be consistent with the name on the diploma.

If the document is a thesis proposal, place the `\thesisproposal` command here.

The default degree is the Doctor of Philosopy. To change the degree, use the `\thesisdegree` command. For example, `\thesisdegree{{\sc Doctor of Education}}`.

Use the `\thesissupervisor` to specify the supervisor. The default is UNKNOWN.

The default department is the Department of Computer Science. To change the department, use the `\thesisdepartment` command. For example, `\thesisdepartment{Department of Psychology}`.

After these comes the `\maketitle` command.

There are two new environments for use with theses, they are `curriculumvitae` and `acknowledgments`. They should appear in that order and before the `abstract` environment.

After the abstract, place the `\tableofcontents`, `\listoftables` and `\listoffigures` commands.

Place the chapters here. If you have quotes associated with the chapters, use the `\titlequote` command described in section 8.5

The `\makebibliography` command comes before the appendicies.

For example,

```
\documentstyle[urcsbiblio,12pt,urcsthesis]{report}
\begin{document}
\title{A Beautiful Thesis}
\author{Very Smart Student}
\thesissupervisor{Sage N. Counsellor}
\maketitle
\begin{curriculumvitae}
Very Smart Student was born.
Then it graduated college.
\end{curriculumvitae}
\begin{acknowledgments}
Thanks to all those that helped.
This work was not funded by NSF grant 1.
\end{acknowledgments}
\begin{abstract}
This is wonderful work.
\end{abstract}
\tableofcontents
\listoftables
\listoffigures
\chapter{Spritely Introduction}
Consider \TeX \cite{Knuth86} ...
\chapter{Contemplative Text}
As Lamport \shortcite{Lamport86} suggests ...
\chapter{Venerable Conclusions}
And thus we see ...
\bibliographystyle{urcsbiblio}
\bibliography{bibdatabase}
\appendix
\chapter{Boring Equations}
```

```
Letting $x = 3$ ...
\end{document}
```

7 Bibliography Style

This section applies to BibTeX users. The bibliography style is `urcsbiblio`. Use of this style requires use of the `urcsbiblio` style modifier in the `\documentstyle` command.

7.1 Bibiography Citations

Use the command `\cite` for full citations. Use the command `\shortcite` for running citations. For example,

```
... as in \LaTeX\ \cite{Lamport86} ...
... and Knuth \shortcite{Knuth86} claims ...
```

will result in

> ... as in LaTeX [Lamport, 1986a] ...
> ... and Knuth [1986] claims ...

The bibliography style is specified with the `\bibliographystyle{urcsbiblio}` command. (Another style called `urcsbiblianno` supports annotated bibliographies using the departmental style. The `urcsannotated` style supports annotated bibliographies using the plain style.) The bibliography is generated with the `\bibliography` command which takes a single argument indicating the names of the BibTeX data files. You must place this command before the `\end{document}` command, generally, just before the appendicies. For example,

```
\documentstyle[urcsbiblio,...]{...}
...
\bibliographystyle{urcsbiblio}
\bibliography{database1,database2}
\appendix
...
\end{document}
```

7.2 Bibiography Database

The `urcsbiblio` style understands the standard BibTeX database entries. Entries for Butterfly Project Reports should use the `techreport` entry type and should set the `type` field to `"Butterfly Project Report"`. Entries for Departmental Guides should also use the `techreport` entry type and should set the `type` field to `"Departmental Guide"`. For many works produced by organizations, the "author" would be much too large for a citation key. In this case, use the `key` field instead of the `author` and `editor` fields. The key will only appear in the citation, not in the reference text. Be sure to specify the `organization` field. The `version` field indicates the version number, if any. For example,

```
@techreport{ Author86,
author       = "U. R. Author",
title        = "A Parallel LaTeX",
type         = "Butterfly Project Report",
number       = 1,
institution  = "University of Rochester, Computer Science Department",
month        = dec,
year         = 1986 }

@manual{     BBN85a,
key          = "BBN",
title        = "Butterfly Parallel Processor Overview",
version      = 1,
organization = "BBN Laboratories",
address      = "Cambridge, Massachusetts",
month        = jun,
year         = 1985 }
```

8 Common Macros

The command `\input{urcsmacros}` brings in the macros common to all Rochester styles. All styles described in this document automatically bring in these macros, so do not do so when using these styles.

8.1 Dates

The `\weekdaystring` macro takes a day number, month number, and year number and produces a string for the day of the week. This macro is only valid from 1901 A.D. through 2099 A.D. For example, `\weekdaystring{25}{12}{1987}` produces "Friday".

The `\monthstring` macro takes a month number and produces a string for the month. For example, `\monthstring{8}` produces "August".

When LaTeX needs the date, it uses the macro `\today`. To change the date style, use one of the commands `\dateWDMY`, `\dateWMDY`, `\dateDMY`, `\dateMDY`, `\dateMY` or `\dateY`. The code is `W` for the weekday name, `D` for the day number, `M` for the month name, and `Y` for the year number. The defaults are `\dateMDY` for LaTeX, `\dateMY` for technical reports, and `\dateY` for theses. For drafts, you should override the default and use `\dateWDMY` or `\dateWMDY`. For example,

`\dateWMDY`	Friday September 15, 1995	`\dateWDMY`	Friday 15 September 1995
`\dateMDY`	September 15, 1995	`\dateDMY`	15 September 1995
`\dateMY`	September 1995	`\dateY`	1995

8.2 Latin Abbreviations

The following latin abbreviations are defined. Many of these abbreviations are often not italisized. In this case, use the text directly and do not use these macros. Good style suggests that many of these abbreviations be followed or preceeded by a comma. See [Chicago, 1982, 5.54] for style guidelines. When following these abbreviations with a space, use the `\␣` command to force a space after the abbreviation.

`\adhoc`	*ad hoc*	`\apriori`	*a priori*	`\aposteriori`	*a posteriori*		
`\Cf`	*Cf.*	`\cf`	*cf.*	`\Eg`	*E.g.*	`\eg`	*e.g.*
`\etal`	*et al.*	`\etc`	*etc.*	`\ibid`	*ibid.*	`\Ibid`	*Ibid.*
`\Id`	*Id.*	`\id`	*id.*	`\Ie`	*I.e.*	`\ie`	*i.e.*
`\Loccit`	*Loc. cit.*	`\loccit`	*loc. cit.*	`\Opcit`	*Op. cit.*	`\opcit`	*op. cit.*
`\Qv`	*Q.v.*	`\qv`	*q.v.*	`\viz`	*viz.*		

8.3 Special Symbols and Logos

The following special symbols and logos are available.

`\BibTeX`	BibTeX	`\LaTeX`	LaTeX	`\SliTeX`	SliTeX	`\TeX`	TeX
`\UNIX`	Unix	`\trademark`	™				

8.4 Author List Breaking

Normally, multiple authors within the `\author` command are separated with the `\and` command. However, sometimes this results in a poor split of authors across lines. When this occurs, use the `\andbreak` command instead of `\and` where you wish to put the line break.

8.5 Title Quotes

The `\titlequote` command places italicized quotes against the right margin. It follows the `\chapter` or `\section` commands and preceeds the first paragraph of the chapter or section. If the first paragraphs of chapters or sections are not indented, the `\noindent` command must preceede the actual first paragraph following the `\titlequote` command. For example,

```
\chapter{Introduction}

\titlequote{For every complex problem there is a
```

```
simple solution \ldots and it doesn't work.\\
--- H. L. Mencken}

\noindent
Parallel computation ...
```

9 Other Styles and Macro Files

This section describes the rest of the departmental styles and macro files. You may find the generally useful as templates or modifiers for other styles.

9.1 Section Indenting

The style file `urcssectindent.sty` will cause LaTeX to indent the first paragraph of each section.

9.2 Draft Headers

If you generate draft hardcopies regularly, it can be hard to distinguish one version from the next. Enter Draft Headers.

When you add `urcsdraft` to your document style options, and include the command `\draftheader` in the preamble, the banner

DRAFT — mm/dd/yy hh:mm

will appear on top of every page, including the first one. This is done by redefining the plain pagestyle, which is in effect on the first page of your document, and also on subsequent pages unless you do `\pagestyle{myheaders}` or something to that effect.

The `\draftheader` command takes an optional argument which, if provided, is spliced in the banner: `\draftheader[title]` creates the banner

DRAFT — title — mm/dd/yy hh:mm

Specifying the document style option `urcsdraft` but not calling `\draftheader` will not cause any redefinitions or other side effects, so for your final version you can just comment it out.

NOTE: The banner reflects the date and time the document was processed by LaTeX, not the date the document was last modified.

9.3 Version Management

If you generate draft hardcopies regularly, it can be hard to notice the changes from one version to the next. Enter Version Management. Be kind to your reviewers! If they can tell what got changed or added, they are more likely to look at yet another draft!

New

When you add `urcsversions` to your document style options, you have the option of marking various portions of your text with version indicators, which look like up and down hooks in the margin. As you can see, this paragraph has been marked. You can mark arbitrary sections of your document: lines, paragraphs, figures, *etc.* Version marks can even straddle each other. Each version mark is numbered, making it possible to have multiple version marks and printing only a select set of them.

Normally, `urcsmargin` places extra width on the inside margins to make binding easier. Unfortunately, this does not leave enough room for the version notes. So, `urcsversions` moves the extra width to the outside margins to accommodate the version notes. For this margin motion to work, you must place `urcsversions` *after* the `urcsreport`, `urcsmanual`, or `urcsmargin` style options. When you wish to generate final copy without version notes and with the margins in the correct place, use the `urcsnoversions` style option in place of the `urcsversions` style option. This turns the version commands into no-ops.

The following commands are available:

`\useversions`

This command turns version marking on; it may appear anywhere in a document.

`\versionsoff`

Turns version marking off. This may also appear anywhere in your document.

`lastversion`

A global counter used to determine which version marks, if any, have already appeared on previous hardcopies. It defaults to 0, and you can change it to any number *n* by putting the command `\setcounter{lastversion}{`*n*`}` in your document.

Tiny Note

`\markversion[`*tinynote*`]{`*num*`}`

Provided *num* is greater than `lastversion`, this puts a down hook in the right margin, with the optional *tinynote*, if given, appearing in the corner using font `\tiny`. The correct thing happens in the left margin in case you use the document option `twosided`.

`\endversion{`*num*`}`

Provided *num* is greater than `lastversion`, this puts an up hook in the margin. Note that no matching of corresponding `\markversion`'s and `\endversion`'s occurs, to allow for version overlap.

`\newversion{`*num*`}`

The same as `\markversion[New]{`*num*`}` — prints "New" in the corner of the hook.

`\modversion{`*num*`}`

The same as `\markversion[Mod]{`*num*`}` — prints "Mod" in the corner of the hook.

Example

One convenient way to use this facility is to use a numeric form of the date as a version number. The document file contains

```
\useversions
```

in the header, which can be commented out for the final run. Each chapter or section file begins with something like

```
\setcounter{lastversion}{890608}    %  James saw this last on 6/8/89
```

and might contain lines such as

```
\newversion{890602}
...
\modversion{890615}
...
\endversion{890602}
...
\endversion{890615}
```

These would cause the printing of one set of up and down hooks, labeled "Mod." The version commands numbered 890602 would not cause indicators to appear because the number is not greater than `lastversion`.

Note that the version numbering can be used to keep track of change dates. If you want to have the dates appear in the marks as well, you might want to define New 11/24/89

```
\newcommand{\datedversion}[4]{    %  \datedversion{LBL}{MM}{DD}{YY}
  \markversion[#1 #2/#3/#4]{#4#2#3}
}
\datedversion{New}{11}{24}{89}
```

Warnings

Version indicators are created inside marginal notes. See the LaTeXdocumentation for a description of the command `\marginpar` and the style parameters `\marginparwidth` and `\marginparsep`. In particular, the `urcsversions` package does not set or alter the values of these parameters. The package creates the indicators, you make sure they fit on the paper!

Many instances of `\markversion` or its derivatives cause LaTeX to issue a warning telling you that the generated MarginPar was moved. In the words of one satisfied user, "Harmless, but disconcerting." Changing the style parameter `\marginparpush` may alleviate this somewhat.

9.4 Department Logo

The macro file `urcslogo.tex` defines the `\urcslogo` command which produces the departmental logo used on the cover of technical reports.

9.5 Margins

The style file `urcsmargin.sty` sets margins and other spacing parameters for use on $8\frac{1}{2} \times 11$ inch paper. For example,

```
\documentstyle[urcsmargin]{article}
```

9.6 Title Page

The style file `urcstitlepage.sty` defines the macros for formatting the title pages used in the technical report styles.

```
\documentstyle[urcstitlepage]{article}
```

References

[Chicago, 1982] *The Chicago Manual of Style*, The University of Chicago Press, Chicago 60637, 13th edition, 1982.

[Knuth, 1986] Donald E. Knuth, *The TEXbook*, Computers & Typesetting. Addison-Wesley Publishing Company, Reading, Massachusetts, 1986.

[Lamport, 1986a] Leslie Lamport, LATEX*: A Document Preparation System*, Addison-Wesley Publishing Company, Reading, Massachusetts, 1986.

[Lamport, 1986b] Leslie Lamport, "Using LATEX on the UNIX Machines," Departmental Guide 12, University of Rochester Computer Science Department, January 1986, local changes by Ken Yap and Lawrence Crowl.

[Rochester, 1978] University of Rochester, Rochester, New York, *The Preparation of Theses—A Manual for Graduate Students*, 1978.