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Preparing a TUCS Technical Report with \LaTeX

TURKU CENTRE *for* COMPUTER SCIENCE

TUCS Technical Report
No 0, March 2013



Preparing a TUCS Technical Report with L^AT_EX

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Abstract

This document describes how to prepare a TUCS technical report using the \LaTeX `tucsreport_2013` document class. This portion of the document was created with the `abstract` environment.

Keywords: TUCS technical reports, \LaTeX

TUCS Laboratory
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1 Preparing Your TUCS Report

The `tucsreport_2013` document class is just a specialisation of the standard \LaTeX [1, 2] `article` document class. To use the `tucsreport_2013` document class, just begin your \LaTeX document like this:

```
\documentclass[12pt]{tucsreport_2013}
```

You should select either the `12pt` or `11pt` options for your document, since the printed version of the report will be reduced to 84 % of the original size when it is printed on B5 paper. A text size of ten points will be too small.

You can use all the same options with the `tucsreport_2013` document class that you can use with the `article` class, and all the same commands and packages as well. The only differences between the standard `article` document class and the `tucsreport_2013` document class are as follows:

- The `a4paper` and `twoside` options for printing on both sides of A4 paper are selected by default by the `tucsreport_2013` document class. The `titlepage` option is also selected by default.
- The `\maketitle` command of a `tucsreport_2013` document requires some additional fields to the standard `author`, `title`, and `date` fields of the `article` document class. These fields are:

tucsnumber: Use the command `\tucsnumber` to set the number of the technical report. If left unset, this field will default to ‘?’.

isbn: Use the command `\isbn` to set the ISBN number of the technical report. If left unset, this field will default to ‘?’.

keywords: Use the command `\keywords` to give a list of keywords that characterise the content of the report. The keywords will appear just after the abstract. This field is optional and can be left unset, but it is a good idea to include the keywords.

lab: Use the command `\lab` to set the name of the TUCS research laboratory that produced the report. The laboratory will appear after the abstract.

Instructions for obtaining technical report number and ISBN number for a new report can be found on the TUCS’ web pages.

Note, when setting the `date` field, just give the month and year. For example `\date{August 2013}`. If you do not set the `date` field, it will default to the current month and year.

- The last, and most important, difference is that when you use the `tucsreport.2013` document class, your document will look like a TUCS Technical Report with front and back pages that obey the graphical recommendations of TUCS.

For an example of how to prepare a TUCS Technical Report with \LaTeX , why not take a look at the source code of this document.

2 Multiple Authors and Departments

The standard \LaTeX commands for specifying multiple authors and their affiliation are supported. Multiple authors are separated by the `\and` command. The `\thanks` command can be used to give the affiliation of an author. When required, explicit line breaks must be inserted in `\thanks` commands, for instance to put the mail address on a separate line.

Here is an example of an `\author` command for a document with multiple authors from different departments.

```
\author{
  Author One\thanks{
    University of Turku, Department of Information Technology,\
    Joukahaisenkatu 3-5, FIN-20520 Turku, Finland \
    {\tt author.one@utu.fi} }
\and
  Author Two\thanks{
    {\AA}bo Akademi University, Department of Computer Science,\
    Joukahaisenkatu 3-5, FIN-20520 Turku, Finland \
    {\tt author.two@abo.fi} }
}
```

3 Pictures

There are many alternative ways of including pictures in your technical report. Both the `epsfig` and the `graphicx` packages are known to work well. The following PostScript figure was produced like this:

```
\begin{figure}[ht]
  \centering
  \includegraphics[width=5cm]{TUCS_logo.eps}
  \caption{Example of using a PostScript figure}
\end{figure}
```



Figure 1: Example of using a PostScript figure

4 Processing Your TUCS Report

To process your TUCS report you will need to ensure that \LaTeX has access to the following files:

tucsreport_2013.cls,
TUCS_etukansi.eps,
TUCS_takakansi.eps,
TUCS_logo.eps,
tylogo.eps,
aalogo.eps, and
tukkklogo.eps.

How you arrange that will depend on what sort of system you are running. If you are using a UNIX-based system and use `dvips` as your dvi to PostScript driver all you have to do is set your `TEXINPUTS` path to include the directory that contains these files.

References

- [1] Leslie Lamport. *\LaTeX : A document preparation system*, 2nd edition. Addison Wesley. 1994.
- [2] Michel Goossens, Frank Mittelbach, Alexander Samarin. *The \LaTeX Companion*. Addison Wesley. 1994.

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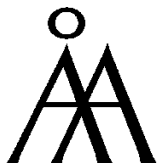
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