

Manual - UTHM thesis template Version 0.2

Using L^AT_EX (front-end L^AT_EX)

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Released 29-Sep-2010

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Abstract

This is an explanation of UTHM thesis template that I have prepared to suit UTHM thesis format style. However, the template is not fully completed but provides a general format and style. You can modify it to make it better from time to time and one day the template will be mature and perfectly matched with all expected requirements. If you modify the template and you think it is better than the this version, don't forget to modify this document as well and put your name as the contributors. Of course you can modify this abstract and other parts of this document. You may copy, distribute to others as you wish. This is free, you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation; either version 2 of the License, or (at your option) any later version.

1 L^AT_EX package requirement

To be able to write your thesis using L^AT_EX have to make sure your L^AT_EX distribution already include several packages which is not the standard L^AT_EX packages in L^AT_EX.

The required packages: `koma-script`, `fancyhdr`, `caption`, `kluwer`, `tocloft`. The installation of any L^AT_EX package should be done from the L^AT_EX distribution. If you are running Ubuntu, you can

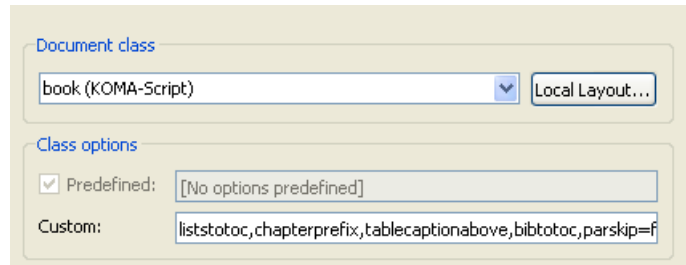
*Other contributors: If you modify it, your name will be listed here!

install from Synaptic package manager where TexLive optional packages can be selected. For Windows users, you should install from MikTek package manager.

2 Document preparation

2.1 Document class

UTHM thesis is written under L^AT_EX document class `book` (KOMA-Script). In order to employ this document class, from the menu **Document**▷**Settings** and from the option **Document Class** find `book` (KOMA-Script).



In the custom field, write the optional command: `listtotoc, chapterprefix, tablecaptionabove, bibtotoc, parskip=full, headings=small`.

listtotoc prints all lists including List of Figures and List of Tables in TOC (Table of Contents). The default in `book` (KOMA-Script), all lists are not printed in TOC.

chapterprefix prints the “Chapter” prefix in front of chapter number in every chapter or in every chapter environment.

tablecaptionabove puts a correct space between table caption and the table. This is required for placing table below the caption table.

bibtotoc includes references heading in Table of Contents

parskip=full provides a full space between paragraph, as defined by the `book` (KOMA-Script) document class. This is important since in the thesis every paragraph must be visible and separated by a vertical space which is higher than the line space. In case an exact space between paragraphs is required, then you have to write a command `\setlength{\parskip}{1cm}` in L^AT_EX preamble as explained in section 2.7, instead of `parskip=full`. You may change the `1cm` to any space measurement as you wish.

headings=small defines as `small` headings style. In `book` (KOMA-Script), other available styles are `normal` and `big`.

2.2 Fonts

The standard UTHM thesis is written in standard Roman font with base size of 12. The font setting should be adjusted. Go to **Document**▷**Settings** and from the option **Font** then change to the following entries:

Default Family: Roman Base Size: 12

Roman: Latin Modern Roman

Sans Serif: Latin Modern Sans Scale (%): 100

Typewriter: Latin Modern Typewriter Scale (%): 100

CJK:

☐ Use true Small Caps

☐ Use Old Style Figures

2.3 Text layout

The line spacing of the text should be set here: from the menu **Document**▷**Settings** then set the line spacing to OneHalf.

Separate paragraphs with

☒ Indentation

☐ Vertical space MedSkip

Spacing

Line spacing: OneHalf

☐ Two-column document

2.4 Page layout

The thesis should be printed in A4 size paper. This should be declare from the menu **Document**▷**Settings** then set the paper format to A4. The heading style to be used is **fancy**. This fancy style requires **fancyhdr** package, so make sure you have installed this from your **L^AT_EX** package manager.

Paper Format

Format: A4

Height: cm

Width: cm

Orientation: ☒ Portrait ☐ Landscape

Page Layout

Headings style: fancy

☐ Two-sided document

2.5 Page margins

The default page margin of book (KOMA-Script) does not match with the margin requirement in UTHM Thesis, you need to modify it.

Go to menu **Document**▷**Settings** then under the option Page Margins, set the margins as follows

☐ Default Margins

Top:	<input type="text" value="2.5"/>	<input type="text" value="cm"/>
Bottom:	<input type="text" value="2.5"/>	<input type="text" value="cm"/>
Inner:	<input type="text" value="4"/>	<input type="text" value="cm"/>
Outer:	<input type="text" value="2.5"/>	<input type="text" value="cm"/>
Head sep:	<input type="text" value="0.5"/>	<input type="text" value="cm"/>
Head height:	<input type="text"/>	<input type="text" value="cm"/>
Foot skip:	<input type="text" value="1"/>	<input type="text" value="cm"/>
Column Sep:	<input type="text"/>	<input type="text" value="cm"/>

2.6 PDF properties

Your pdf output can be nice with all links active, which means the table of contents links to the corresponding pages in the document. Other links within the document also accurately point to the referred page.

LyX has already included hyperref L^AT_EX package when you install LyX. What you need to do is just activating this package. Go to menu **Document > Settings** and from **PDF Properties** option enable the **Use hyperref support** by clicking the radio button. Write the title of the thesis and your name as the ID of pdf document.

☒ Use hyperref support

General Hyperlinks Bookmarks

Header Information

Title:

Author:

Subject:

Keywords:

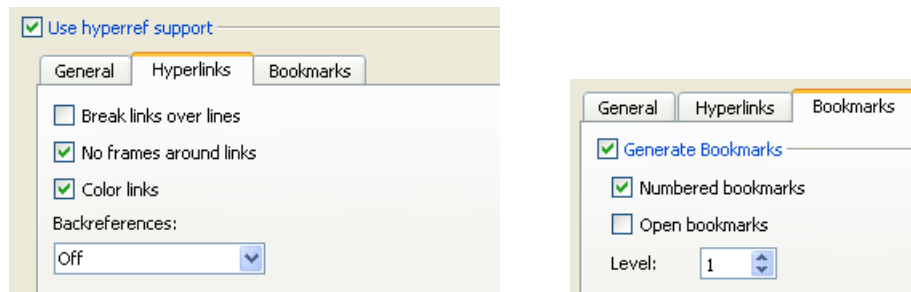
☒ Automatically fill header

☐ Load in fullscreen mode

Additional options

You need to write optional commands in Additional options field: `linkcolor=blue`, `citecolor=blue`, `urlcolor=blue`, `pdfstartview=XYZ`, `plainpages=false`, `pdfpagelabels`. The “blue” color is recommended during thesis writing process to see clearly all links. You may change the color to any standard color according to your preference. When your thesis is ready to print, the printed result will be better if you switch the color to “black”.

Once you have finished writing all optional commands in **General** tab, then modify the **Hyperlinks** and **Bookmark** tabs as follows:



If you want to know what the effects of changing the options under Hyperlinks and Bookmarks tabs, you can modify and view the pdf output. Perhaps you can find the most preferable to you.

2.7 L^AT_EX Preamble

The next step to prepare the thesis template is writing some additional command in L^AT_EX preamble, accessible from the menu Document > Settings, L^AT_EX preamble.

The complete commands written in L^AT_EX preamble are as follows:

```
% =====
% Written by Waluyo Adi Siswanto
% You are allowed to modify this
% in order to meet your requirements
% =====

% this command prints empty date in title page
\date{}

% this command set the paragraph indentation
% if you want to modify change the value 1.5cm to your preference
\setlength{\parindent}{1.5cm}

% This command will change the default Bibliography to References
\AtBeginDocument{\renewcommand{\bibname}{References}}

% The following comands center the heading of chapters and
% chapter entries, the default is on the left
\addtokomafont{chapterentry}{\centering}
\addtokomafont{chapter}{\centering}

% The following commands set the page numbers on the top right
% except in the beginning of chapters
% using fancyhdr package (page layout>heading style ->fancy)
\lhead{}
\chead{}
\rhead{\thepage}
\lfoot{}
\cfoot{}
\rfoot{}
\renewcommand{\headrulewidth}{0pt}

% The following commands set the vertical space before and after
% every chapter entry
```

```

\renewcommand*{\chapterheadendvskip}{\vspace{2cm}}
\renewcommand*{\chapterheadstartvskip}{\vspace{2.5cm}}

% The following commands set the TOC, LOT and LOF
% this employs tocloft package
\usepackage{tocloft}
\renewcommand{\cftdot}{}

\renewcommand{\cfttoctitlefont}{\hfill\Large\bfseries\sffamily}
\renewcommand{\cftaftertoctitle}{\hfill}
\renewcommand{\cftaftertoctitleskip}{2.5cm}
\renewcommand{\cftbeforetoctitleskip}{2.5cm}

\renewcommand{\cftloftitlefont}{\hfill\Large\bfseries\sffamily}
\renewcommand{\cftafterloftitle}{\hfill}
\renewcommand{\cftafterloftitleskip}{2.5cm}
\renewcommand{\cftbeforeloftitleskip}{2.5cm}

\renewcommand{\cftlottitlefont}{\hfill\Large\bfseries\sffamily}
\renewcommand{\cftafterlottitle}{\hfill}
\renewcommand{\cftafterlottitleskip}{2.5cm}
\renewcommand{\cftbeforelottitleskip}{2.5cm}

```

By default the document class book (KOMA-Script) always prints the date of printing in the title page. To disable this a command `\date{}` prints a blank date.

The indentation of the paragraph is set 1.5 cm. This definition should be controlled by the command `\setlength{\parindent}{1.5cm}`. If you want to set the vertical space in exact measurement (for example 1 cm), then you need to insert an additional command `\setlength{\parskip}{1cm}`. See another explanation in section 2.1.

The default of Bibliography heading name in book (KOMA-Script) is **Bibliography**. In UTHM thesis, the name is **References**. In this case you need to change the default name defined by `\bibname`, by using the following command:

```
\AtBeginDocument{\renewcommand{\bibname}{References}}
```

The command however works when you are using the default language which is English. In case you want to use another language rather than English. You have to access in the `babel` level. For example you want to use English (UK), then the command above should be modified to :

```

\AtBeginDocument{
  \addto\captionsbritish{
    \renewcommand{\bibname}{References}
  }
}

```

In UTHM thesis the page number should be located on the top-right except in the beginning of every chapter and chapter like pages the page number are located at the bottom of the page and centered. To follow this requirement a `fancyhdr` package is needed (see section 2.4). Write the following commands:

```

\lhead{}
\chead{}
\rhead{\thepage}
\lfoot{}
\cfoot{}
\rfoot{}
\renewcommand{\headrulewidth}{0pt}

```

Another style appeared in UTHM thesis is before and chapter entry, the vertical space is wider than the space between paragraphs. Assuming this vertical space before chapter heading is 2.5 cm and after chapter heading is 2 cm, the following commands will set it accurately.

```
\renewcommand*{\chapterheadendvskip}{\vspace{2cm}}
```

`\renewcommand*{\chapterheadstartvskip}{\vspace{2.5cm}}`

The settings of TOC, LOF and LOT are controlled by `tocloft` package.

3 Bibliography

There are two template versions available. One has numeric bibliography style (`UTHM-Thesis-V-xx.lyx`) and another one uses author-year style (`UTHM-Thesis-authoryear-V-xx.lyx`)

3.1 Numerical bibliography style

- When you insert the bibliography in the first time and attaching bibliography database file (*.bib), from the menu **Insert**▷**List/TOC**▷**BibTeX Bibliography**, you have to select `klunum` as the bibliography style. The package `klunum` is provided by Kluwer international publisher for numeric citation and bibliography styles.
- For Ubuntu users, `klower` and other publishers styles can be made available if you are installing `texlive-publishers`. If you are using Windows, `klower` package must be installed from MikTeX package manager.

3.2 Author-year bibliography style

- When you insert the bibliography in the first time and attaching bibliography database file (*.bib), from the menu **Insert**▷**List/TOC**▷**BibTeX Bibliography**, you have to use `klunamed` as the bibliography style. The package `klunamed` is provided by Kluwer international publisher for author-year citation and bibliography styles.
- The citation style must be consistent with author-year style. Go to menu **Document**▷**Settings**▷**Bibliography**, then change the default (numerical) to `Natbib` (author-year).

4 Modification records

Version 0.1: (23-September-2010)

- `<was.uthm>` The first version is released to public

Version 0.2: (29-September-2010)

- `<was.uthm>` updated manual
- `<was.uthm>` title page updated
- `<was.uthm>` page margin: change margins
- `<was.uthm>` add students declaration page, dedication page
- `<was.uthm>` create author-year version (`UTHM-Thesis-authoryear-V-xx.lyx`)
- `<was.uthm>` modify TOC, LOF and LOT without leader dots (employing `tocloft`)

5 Guidelines to contributors

Please free to modify and to contribute!

Whenever you modify UTHM thesis template (filename: `UTHM-Thesis-V-01.lyx`) you are requested to save in the subsequent version `UTHM-Thesis-V-xx.lyx`, where `xx` is the numbers. If you have modified `V-01`, you have to save `V-02`. Inside the document (the first page), there is a note indicating the version number and the date of release. Please modify this consistently with the file version.

You need to modify and to document the modifications that you have done in the manual (this file): `uthm-thesis-manual-V-01.lyx`.

Apart from the manual contents that should be in good agreement with the thesis template, there are several sections you need to modify. This is very important so that other contributors want to make better have sufficient information what have been done previously.

Filename

You are requested to save the new version following. If the file is `UTHM-Thesis-V-01.lyx`, the released version to public must be `UTHM-Thesis-V-02.lyx`

Title

The title must be adjusted according to the new release version

PDF Properties

The title of the pdf properties (Document▷Settings and from PDF Properties) should be adjusted to be consistent with the version number

Release date

The release date should modified before you release to public. This information is written in \LaTeX Preamble accessible from the menu Document▷Settings, \LaTeX Preamble

Modification records

Write the summary of the modification in the new release. This modification records are written in section [4](#).