

# LaTeX Classes for KTH Theses

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## Abstract

This document describes L<sup>A</sup>T<sub>E</sub>X document classes for KTH theses. More information about the graphical profile at KTH is available on the web: «<http://www.kth.se/internt/projekt/grafiskprofil/>».

## 1 Introduction

The KTH thesis document classes can be downloaded from «<ftp://ftp.nada.kth.se/pub/tex/local/kthesis.tar.gz>». They are built on the highly customizable document class «memoir» written by Peter Wilson. Hence they require the «memoir» class to work; this class comes with most modern L<sup>A</sup>T<sub>E</sub>X distributions and it can be downloaded from any CTAN mirror. It has been verified that the thesis classes work together with version 1.3a (2002-11-22) of the «memoir» class with version 1.9 (2003-11-19) of the «memoir» patch file as well as together with version 1.6 (2004-01-31) of the «memoir» class with version 2.1a (2004-02-19) of the «memoir» patch file. The «kthesis» classes also require the KTH logo. This logo is available in a package suitable for use with T<sub>E</sub>X and L<sup>A</sup>T<sub>E</sub>X at «<ftp://ftp.nada.kth.se/pub/tex/local/>».

Most modern T<sub>E</sub>X distributions have a number of directories (aka folders) designated for local additions of document classes and other related files. The archives containing the document classes and the KTH logo should be unpacked in one of these directories with the directory structure intact. With MiK<sub>T</sub>E<sub>X</sub>, the directory for local additions is normally «C:\localtexmf» – with t<sub>E</sub>X it is probably easiest to unpack the archives in the folder «~/texmf». Remember to update the file name database when the files have been installed – in MiK<sub>T</sub>E<sub>X</sub> this is done through the configuration program while t<sub>E</sub>X users have to run «texhash» from the shell prompt.

## 2 Producing Doctoral and Licentiate Theses

This macro package contains two classes for documents related to Doctoral and Licentiate theses: «kthesis» and «kthspik». The former is used to typeset the thesis itself. Specifically, it should be used to produce the *insert*, i.e., all pages in the book but not the cover. The latter class can be used to typeset the announcement sheet that states when the defense takes place. Such a sheet is called *spikblad* in Swedish and it is typically distributed to various departments and academic institutions.

As mentioned above, the document class is an add-on to the document class «memoir» and it hence accepts the same class options and behaves in the same way as that class with the following exceptions: 1) The only paper size specifications recognized are «a4paper» and «g5paper». 2) The class redefines the `\maketitle` command to produce a title page containing the KTH logo. 3) It is possible to omit the standard text “Akademisk avhandling...” with the class option «noblurb». 4) The additional class option «electronic» adapts the layout of the page on the stock to electronic publishing. 5) It is possible to specify a subtitle, bibliographic information and data concerning the thesis defense.

A standard L<sup>A</sup>T<sub>E</sub>X document class, such as the «article» class, supports the definition of the document title, author and date using the commands `\title`, `\author` `\date`. The «kthesis» class supports those commands and many more:

- `\title` – the document title (mandatory). It appears at the top of page 1.
- `\subtitle` – the document subtitle (optional). It appears below the title on page 1.
- `\author` – the author of the thesis (mandatory). It appears below the subtitle on page 1.
- `\date` – the date of publication (mandatory). It appears in the copyright notice and may be written in either Swedish or English (the former is probably best since most text on page 2 is already in Swedish).
- `\thesistype` – the kind of thesis you are writing (mandatory). It should conform on the text specified at the bottom right corner of the cover, i.e., it should be something like “Doctoral Thesis”, “Licentiate Thesis”, or “Master of Science Thesis”, and it appears near the bottom of page 1.
- `\imprint` – where and when the thesis is published (mandatory). It should conform on the text specified at the bottom right corner of the cover, i.e., it should be something like “Stockholm, Sweden, 2004”, and it appears at the bottom of page 1.
- `\examen` – the kind of degree the thesis is associated with (mandatory unless you use the «noblurb» class option). This text must be in Swedish and it appears in the standard text beginning with “Akademisk avhandling” on page 2.
- `\disputationsdatum` – the date of the defense (mandatory unless you use the «noblurb» class option). This text must be in Swedish and it appears in the standard text beginning with “Akademisk avhandling” on page 2.
- `\disputationslokal` – the place of the defense (mandatory unless you use the «noblurb» class option). This text must be in Swedish and it appears in the standard text beginning with “Akademisk avhandling” on page 2.
- `\publisher` – the printing house (mandatory). If you use the KTH press, this text should be “Universitetsservice US AB”.

- `\address` – the address to the department producing the thesis. If no address is specified, the KTH address is used. May be written in either Swedish or English (the former is probably best since most text on page 2 is already in Swedish).
- `\isbn` – the ISBN number of the thesis (optional).
- `\isrn` – the ISRN number of the thesis (optional).
- `\issn` – the ISSN number of the thesis (optional).
- `\trita` – the TRITA number of the thesis (optional).
- `\kthlogo` – the file used for the KTH logo (optional). If you want to use the KTH logo corresponding to your department, specify the file name with this command. Note that the thesis is only designed for the official KTH logo as defined by the KTH Presidential Decisions 2002-11-11 (nr 938, dnr 930-1409-02, dossier 19) and 2003-03-03 (nr 181/03, dnr 930-2003-0437, dossier 19).

Since «kthesis» is built on the highly configurable «memoir» class, it is possible to redefine the document appearance with a reasonable effort. Details regarding this is described in the excellent «memoir» class manual written by Peter Wilson (*The memoir class for configurable typesetting*, fifth edition, August 2002). This manual also discusses typographic conventions and book production in general.

### 3 Producing Master’s Theses

This macro package contains one document class file for Master’s theses: «kth-mag». This class is used to typeset the thesis itself, including a generic title page. The official title page is usually produced by the department responsible for the Master’s project—consult your department for details. Nevertheless, the title page produced by the class file can be useful if you intend to put an electronic version of the thesis on the web.

As mentioned above, the document class is an add-on to the document class «memoir» and it hence accepts the same class options and behaves in the same way as that class with the following exceptions: 1) The only paper size specifications recognized are «a4paper» and «g5paper». 2) The class redefines the `\maketitle` command to produce a title page containing the KTH logo. 3) The additional class option «electronic» adapts the layout of the page on the stock to electronic publishing. 4) It is possible to specify a subtitle and certain information that should appear on the the title page.

A standard L<sup>A</sup>T<sub>E</sub>X document class, such as the «article» class, supports the definition of the document title, author and date using the commands `\title`, `\author` `\date`. The «kth-mag» class supports those commands and some more:

- `\title` – the document title (mandatory). It appears at the top of page 1.
- `\subtitle` – the document subtitle (optional). It appears below the title on page 1.

- `\author` – the author of the thesis (mandatory). It appears below the subtitle on page 1.
- `\date` – the date of publication (mandatory). It appears in the copyright notice and may be written in either Swedish or English (the former is probably best since most text on page 2 is already in Swedish).
- `\blurb` – the text that should appear near the bottom of the title page. This text could typically include the name of the thesis supervisor.
- `\trita` – the TRITA number of the thesis (optional).
- `\kthlogo` – the file used for the KTH logo (optional). If you want to use the KTH logo corresponding to your department, specify the file name with this command. Note that the thesis is only designed for the official KTH logo as defined by the KTH Presidential Decisions 2002-11-11 (nr 938, dnr 930-1409-02, dossier 19) and 2003-03-03 (nr 181/03, dnr 930-2003-0437, dossier 19).

Since «kth-mag» is built on the highly configurable «memoir» class, it is possible to redefine the document appearance with a reasonable effort. Details regarding this is described in the excellent «memoir» class manual written by Peter Wilson (*The memoir class for configurable typesetting*, fifth edition, August 2002). This manual also discusses typographic conventions and book production in general.

## 4 References and Bib<sub>T</sub>E<sub>X</sub> support

This package also includes two style files for the Bib<sub>T</sub>E<sub>X</sub> program. The first one—«kthplain»—is a small extension of the Bib<sub>T</sub>E<sub>X</sub> standard style file «plain». In addition to the fields supported by the «plain» style file, «kthplain» also supports the fields ISBN, ISSN and URL. If the «url» package has been loaded, it is used to typeset the URLs. Also, the «kthplain» style does not use the now obsolete font changing commands that are not supported by the «memoir» class.

Many authors prefer to use so called “author-year” citation systems, i.e., references to entries in the bibliography are of the form (Smith, 2003). The by far best way to achieve this is to use the «natbib» package. The second bibliography style file—«kthnat»—is a slightly modified version of the «plainnat» style that comes with the «natbib» package. In particular, the «kthnat» style does not use the now obsolete font changing commands that are not supported by the «memoir» class. The «kthnat» style is used in exactly the same way as «plainnat», see the «natbib» manual for details.

The «kthnat» bibliography style formats the actual bibliography as a numbered list, sorted by author. More elaborate bibliography styles can easily be constructed with the «custom-bib» package that comes with most modern L<sup>A</sup>T<sub>E</sub>X distributions. It is an interactive program written in L<sup>A</sup>T<sub>E</sub>X. As a user, one replies to a series of questions, thereby specifying how the bibliography should be formatted, the corresponding bibliography style file is then constructed automatically. The interactive program is started by executing «latex makebst» in a shell command window.

## 5 Printing your Thesis

KTH Doctoral and Licentiate theses are normally produced in G5 format (169 mm by 239 mm). The «kthesis» class assumes that the document is printed on A4 paper and then trimmed to G5. In other words, the stock size is A4 and the page size is G5. The page is centered vertically and flushed towards the spine on the stock. Documents submitted for printing at the KTH press should be in PostScript format and they should not contain any trimming marks. However, it is advisable to also give the printing house a couple of printed pages—in addition to the entire thesis, submitted electronically without trimming marks—and indicate the final page dimensions on those printed sheets. The «kthesis» class can automatically show such trimming marks if it is given the class option «showtrims». Once you receive a demo printout of your thesis from the printing house, check it carefully for errors in the positioning and size of the page.

As specified by the KTH graphical profile, the cover is designed and produced separately. The first page produced by the «kthesis» class is not identical to the cover; it is in fact the norm in book production that the cover and page 1 of the insert differ in printed books. Some departments require that also the first page of the insert is produced separately; check your local department regulations for details.

Remember that the title of your thesis will be entered in several library catalogues and, hopefully, cited in many articles and theses. You should therefore use only normal letters and digits in the title; avoid mathematical notation.

The “spikblad” is normally printed slightly smaller than G5 (160 mm by 230 mm) so that it can fit physically inside the bound thesis. The «kthspik» class assumes that the document is printed on A4 paper and then trimmed; the page is centered both vertically and horizontally on the stock. If you do not print and trim the announcement sheets yourself, tell the press the size of the trimmed pages and how the pages are laid out on the stock. Note that the typearea is the same, both for the «kthesis» class and the «kthspik» class. This ensures that the line breaks in, *i.e.*, the abstract are independent of the document class.

Master’s theses are usually “printed” locally on the department copier—consult your department for details.

## 6 Electronic Publishing

As mentioned above, the class option «electronic» adapts the output to electronic publishing. This only has one effect: The page is cropped to its actual size. You should therefore not use the «showtrims» class option in conjunction with «electronic».

## 7 Modifying the Layout

Since the thesis classes are based on the highly configurable «memoir» class, it is reasonable simple to modify the layout as desired. A small example of such modifications is included below.

```
<*layout>
\ProvidesPackage{nada-ex}[2005/03/16]
```

```

%% Example customizations of the KTH thesis classes.
%% See the package documentation for more details.

```

By default, the memoir class does not number subsections, nor are they included in the table of contents. The following four lines change this.

```

\maxsecnumdepth{subsection}
\setsecnumdepth{subsection}
\maxtocdepth{subsection}
\settocdepth{subsection}

```

Sans serif fonts in chapter and section headings can look nice.

```

\renewcommand{\partnamefont} {\usefont{T1}{lmss}{sbc}{n}\boldmath\huge}
\renewcommand{\partnumfont}  {\usefont{T1}{lmss}{sbc}{n}\boldmath\huge}
\renewcommand{\parttitlefont}{\usefont{T1}{lmss}{sbc}{n}\boldmath\Huge}
\renewcommand{\chapnamefont} {\usefont{T1}{lmss}{sbc}{n}\boldmath\huge}
\renewcommand{\chapnumfont}  {\usefont{T1}{lmss}{sbc}{n}\boldmath\huge}
\renewcommand{\chapttitlefont}{\usefont{T1}{lmss}{sbc}{n}\boldmath\Huge}
\setsecheadstyle  {\usefont{T1}{lmss}{bx}{n}\boldmath\Large\raggedright}
\setsubsecheadstyle{\usefont{T1}{lmss}{bx}{n}\boldmath\large\raggedright}
\setparaheadstyle {\normalsize\bfseries\boldmath}
\setsubparaheadstyle{\normalsize\bfseries\boldmath}

```

Instead of slanted type in the page headers, use upright, slightly smaller, type.

```

\makeevenhead{headings}%
  {\normalfont\small\thepage}{\normalfont\small\leftmark}
\makeoddhead{headings}%
  {\normalfont\small\rightmark}{\normalfont\small\thepage}

```

We also modify the style of figure and table captions slightly.

```

\setlength{\@tempdima}{\textwidth}
\addtolength{\@tempdima}{-2\leftmargin}
\captionwidth{\@tempdima}
\changecaptionwidth
\captiondelim{. }
\captionnamefont{\normalfont\footnotesize\bfseries}
\captiontitlefont{\normalfont\footnotesize}

```

For some reason, standard L<sup>A</sup>T<sub>E</sub>X has glue with non-zero stretchability in `\parskip`. Not nice...

```

\setlength{\parskip}{0pt}

```

Finally, we use the KTH logo corresponding to the School of Computer Science and Communication instead of the generic one.

```

\kthlogo{kth_svv_comp_science_comm}

```

```

</layout>

```

## 8 The Source Code

This section contains the source code for the «kthesis» document class. The bibliography styles are omitted from this document but they are present in the file «kthesis.dtx».

```

<*classfile>
\NeedsTeXFormat{LaTeX2e}[2001/01/01]
\spikblad\ProvidesClass{kthspik}

```

```

\avhandling & drlic) \ProvidesClass{kthesis}
\avhandling & exjobb) \ProvidesClass{kth-mag}
[2004/12/14 v2.1 Document Class for KTH Theses]

```

Now follows the content of the class files. First we define two new if statements that are needed to handle the new class options «noblurb» and «electronic».

```

\drlic) \newif\if@kthesis@blurb \@kthesis@blurbtrue
\drlic) \DeclareOption{noblurb}{\@kthesis@blurbfalse}
\newif\if@kthesis@electronic \@kthesis@electronicfalse
\DeclareOption{electronic}{\@kthesis@electronictrue}

```

Then we define two macros that setup the stock size and the papersize. Depending on the page size selected with the class options (either «a4paper» or «g5paper», the latter being the default), one of the two macros are called.

```

\def\@kthesis@setpapersize@afour{%
  \setstocksize{297mm}{210mm}
  \settrimmedsize{297mm}{210mm}{*}
  \settypeblocksize{49pc}{33pc}{*}}
\def\@kthesis@setpapersize@gfive{%
  \if@kthesis@electronic

```

If the class option «electronic» was specified, we set both the stock size and the paper size to the actual dimensions of the page (169 mm × 239 mm for the thesis and (160 mm × 230 mm for the announcement sheet. Unless we run pdfL<sup>A</sup>T<sub>E</sub>X we also insert a special that specifies the page size for dvips.

```

\*avhandling)
  \setstocksize{239mm}{169mm}
  \settrimmedsize{239mm}{169mm}{*}
  \ifpdf
  \else
    \special{papersize=169mm,239mm}
  \fi
\avhandling)
\*spikblad)
  \setstocksize{230mm}{160mm}
  \settrimmedsize{230mm}{160mm}{*}
  \ifpdf
  \else
    \special{papersize=160mm,230mm}
  \fi
\spikblad)

```

If the class option «electronic» was not specified, the page layout should be such that the thesis can be printed and bound at the KTH press. For the insert, this means that the G5 page should be centered vertically on the stock and flushed towards the spine horizontally. Since the announcement sheet is not bound, we center it on the stock. In this way, all four edges of the sheet can be trimmed.

If we run pdfL<sup>A</sup>T<sub>E</sub>X we need to set the page size in the PDF file to the size of the stock. Since the graphics package resets the PDF page size when it is loaded, we need to reset the PDF page size in the “begin document hook”.

```

\else
  \setstocksize{297mm}{210mm}
\avhandling) \settrimmedsize{239mm}{169mm}{*}
\spikblad) \settrimmedsize{230mm}{160mm}{*}
  \setlength{\trimtop}{\stockheight}

```

```

\addtolength{\trimtop}{-\paperheight}
\setlength{\trimtop}{0.5\trimtop}
\setlength{\trimedged}{\stockwidth}
\addtolength{\trimedged}{-\paperwidth}
(spikblad) \setlength{\trimedged}{0.5\trimedged}
\ifpdf
  \AtBeginDocument{%
    \setlength{\pdfpagewidth}{\stockwidth}
    \setlength{\pdfpageheight}{\stockheight}}
\fi
\fi

```

No matter what, the size of the type block is always the same.

```
\settypeblocksize{43pc}{30pc}{*}
```

Next comes code to handle the remaining class options. Since we build the class on the existing class «memoir», we just pass most options to that class. Exceptions to this are the options that select stock size—we don’t support them and instead use the options «a4paper» and «g5paper» to define the page size.

```

\DeclareOption{g5paper}{\def\kthesis@trimmedsize{gfive}}
\DeclareOption{a3paper}{\OptionNotUsed}
\DeclareOption{a4paper}{\def\kthesis@trimmedsize{afour}}
\DeclareOption{a6paper}{\OptionNotUsed}
\DeclareOption{a5paper}{\OptionNotUsed}
\DeclareOption{b3paper}{\OptionNotUsed}
\DeclareOption{b4paper}{\OptionNotUsed}
\DeclareOption{b5paper}{\OptionNotUsed}
\DeclareOption{b6paper}{\OptionNotUsed}
\DeclareOption{letterpaper}{\OptionNotUsed}
\DeclareOption{legalpaper}{\OptionNotUsed}
\DeclareOption{executivepaper}{\OptionNotUsed}
\DeclareOption{ebook}{\OptionNotUsed}
\DeclareOption{landscape}{\OptionNotUsed}
\DeclareOption*{\PassOptionsToClass{\CurrentOption}{memoir}}
\ExecuteOptions{g5paper}
\ProcessOptions\relax

```

We can now load the «memoir» class. Since we assume that the stock is A4 paper, we specify that.

```
\LoadClass[a4paper]{memoir}
```

We now set the page size. The macros that set page size may add code to the “begin document hook” that resets the the lengths `\pdfpagewidth` and `\pdfpageheight`. Since it appears that the graphics package changes those lengths, we need to insert a hook that loads the graphics package before calling the page size macros.

```

\AtBeginDocument{\RequirePackage{graphics}}
\@nameuse{@kthesis@setpapersize@kthesis@trimmedsize}

```

We then finalize the layout.

```

\setlrmargins{*}{*}{*}
\setulmargins{*}{*}{*}
\checkandfixthelayout

```

The thesis classes support some additional document information; the following macros handle that.

```

\def\subtitle{\gdef\thesubtitle}
<*drlic>
\def\thesistype{\gdef\thethesistype}
\def\examen{\gdef\theexamen}
\def\disputationsdatum{\gdef\thedisputationsdatum}
\def\disputationslokal{\gdef\thedisputationslokal}
\def\imprint{\gdef\theimprint}
\def\isbn{\gdef\theisbn}
\def\isrn{\gdef\theisrn}
\def\issn{\gdef\theissn}
\def\publisher{\gdef\thepublisher}
\def\address{\gdef\theaddress}
</drlic>
\def\trita{\gdef\thetrita}
\def\kthlogo{\gdef\thekthlogo}
<exjobb>\def\blurb{\gdef\theblurb}

```

Default values...

```

\let\thesubtitle\relax
<*drlic>
\def\thethesistype{\ClassError{kthesis}%
  {\protect\thesistype\space not given}%
  {Please Read The Fine Manual.}}
\def\theexamen{\ClassError{kthesis}%
  {\protect\examen\space not given}%
  {Please Read The Fine Manual.}}
\def\thedisputationsdatum{\ClassError{kthesis}
  {\protect\thedisputationsdatum\space not given}%
  {Please Read The Fine Manual.}}
\def\thedisputationslokal{\ClassError{kthesis}
  {\protect\thedisputationslokal\space not given}%
  {Please Read The Fine Manual.}}
\def\theimprint{\ClassError{kthesis}%
  {\protect\theimprint\space not given}%
  {Please Read The Fine Manual.}}
\def\thepublisher{\ClassError{kthesis}%
  {\protect\thepublisher\space not given}%
  {Please Read The Fine Manual.}}
\def\theaddress{KTH\SE-100 44 Stockholm\SWEDEN}
</drlic>
\def\thekthlogo{kth_svv}
<exjobb>\let\theblurb\relax

```

Define a page style that puts bibliographic information at the bottom of every page. The style is used by default in the «kthsipk» class but it is available also in the «kthesis» class.

```

<*drlic>
\makepagestyle{kthabstract}
\makeevenhead{kthabstract}{-}{-}
\makeoddhead{kthabstract}{-}{-}
\makeevenfoot{kthabstract}{-}{\normalfont\scriptsize
  \def\@maybebullet{\if@bullet\space\textbullet\space\fi}
  \newif\if@bullet \@bulletfalse
  \ifundefined{thetrita}{-}{\@maybebullet\thetrita\@bullettrue}%
  \ifundefined{theissn}{-}{\@maybebullet\theissn\@bullettrue}%
}

```

```

\ifundefined{theisrn}{}\@maybebullet\theisrn\@bullettrue}%
\ifundefined{theisbn}{}\@maybebullet\theisbn\@bullettrue}%
}{}
\makeoddfoot{kthabstract}{}\normalfont\scriptsize
\def\@maybebullet{\if@bullet\space\textbullet\space\fi}
\newif\if@bullet \@bulletfalse
\@ifundefined{thetrita}{}\@maybebullet\thetrita\@bullettrue}%
\@ifundefined{theissn}{}\@maybebullet\theissn\@bullettrue}%
\@ifundefined{theisrn}{}\@maybebullet\theisrn\@bullettrue}%
\@ifundefined{theisbn}{}\@maybebullet\theisbn\@bullettrue}%
}{}
(spikblad)\pagestyle{kthabstract}
</drlic>

```

Finally, we redefine the `\maketitle` command. For the «kthesis» class, we get a different layout on the title page and bibliographic data on the back of the title page. For the «kthspik» class we get a different layout on the title page and bibliographic information in the page footer. The code that typesets the KTH logo assumes that the sides in the black square are 369 postscript points long. This seems to be the only way to reliably get a logo where black square is 25 mm by 25 mm on the title page—since the text below the square is sometimes wider than the square, we cannot just set the width of the entire logo to 25 mm.

```

<drlic>
\newif\if@kthesis@babel \@kthesis@babelfalse
\AtBeginDocument{%
\ifpackagewith{babel}{swedish}%
{\@kthesis@babeltrue}{\@kthesis@babelfalse}}
\def\maketitle{%
\begingroup
\sfamily
<avhandling>
\pagestyle{empty}
\renewcommand*{\thepage}{title-\arabic{page}}
\noindent
\parbox[b][0.6\textheight]{\textwidth}{\centering\noindent
</avhandling>
<spikblad>
{\centering\noindent
</spikblad>
\scalebox{0.192}{\includegraphics{\thekthlogo}}\par
\vskip1cm
\LARGE\bfseries\thetitle\par
\vfill
\normalsize\mdseries\thesubtitle\par
\vfill
\large\MakeUppercase{\theauthor}\par
<avhandling>
}\par
\vfill\noindent
\parbox[b]{\textwidth}{\centering\noindent\large
</avhandling>
(spikblad) \vfill
\thethesistype\par
\theimprint\par

```

```

<*avhandling>
  }\par
  \newpage
  \hbox{}\vfill
  \rmfamily
  \noindent\begin{tabular}[b]{@{}l@{}}
    \@ifundefined{thetrita}{}{\thetrita\}%
    \@ifundefined{theissn}{}{\theissn\}%
    \@ifundefined{theisrn}{}{\theisrn\}%
    \@ifundefined{theisbn}{}{\theisbn\}%
  \end{tabular}
  \hfill
  \noindent\begin{tabular}[b]{@{}r@{}}
    \theaddress
  \end{tabular}
  \par\bigskip
</avhandling>
<*spikblad>
  }
  \vfill
  \rmfamily
</spikblad>
  \if@kthesis@blurb
    \if@kthesis@babel
      \begin{otherlanguage}{swedish}
        \noindent Akademisk avhandling som med tillst\aa nd
        av Kungl Tekniska h\{o}gskolan framl\{a}gges till
        offentlig granskning f\{o}r avl\{a}ggande av
        \theexamen\space \thedisputationsdatum\space i
        \thedisputationslokal.\par
      \end{otherlanguage}
    \else
      \noindent Aka\-de\-misk av\-hand\-ling som med
      till\-st\aa nd av Kungl Tek\-niska h\{o}g\-skolan
      fram\-l\{a}g\-ges till of\-fent\-lig gransk\-ning
      f\{o}r av\-l\{a}g\-gande av \theexamen\space
      \thedisputationsdatum\space i \thedisputationslokal.\par
    \fi
    \bigskip
  \fi
<*avhandling>
  \noindent
  \copyright \space \theauthor, \thedate
  \par\bigskip\noindent
  Tryck: \thepublisher\par
  \cleardoublepage
</avhandling>
<spikblad> \newpage
  \endgroup
}
</drlic>
<*exjobb>
\def\maketitle{%
  \begin{group

```

```

\sfamily
\pagestyle{empty}
\renewcommand*{\thepage}{title-\arabic{page}}
\noindent
\parbox[b][0.6\textheight]{\textwidth}{\centering\noindent
\scalebox{0.192}{\includegraphics{\thekthlogo}}\par
\vskip1cm
\LARGE\bfseries\thetitle\par
\vfill
\normalsize\mdseries\thesubtitle\par
\vfill
\large\MakeUppercase{\theauthor}\par
}\par
\vfill\noindent
\parbox[b]{\textwidth}{\centering\noindent
\theblurb\par
}
\vfill
\centerline{\thetrita}
\rmfamily
\cleardoublepage
\endgroup
}
</exjobb>
</classfile>

```

## 9 Template Files

Included with the KTH thesis class are also several skeleton files. The first two, «kth-demo.tex» and «kth-spik.tex», use the classes «kthesis» and «kthspik», respectively. The last two, «kth-ex1.tex» and «kth-ex2.tex» use the class «kth-mag». Note that the imprint and bibliographic information used in those files may not be correct for your thesis.

```

<demo>\documentclass[showtrims]{kthesis}
<spik>\documentclass[showtrims]{kthspik}
<ex1>\documentclass[a4paper,11pt]{kth-mag}
<ex2>\documentclass[showtrims]{kth-mag}

```

The theses classes work best if the babel package is loaded with both Swedish and English languages. Even if the thesis is written in English, there are some pices of text that must be in Swedish.

```

<*demo | spik | ex1 | ex2>
\usepackage[T1]{fontenc}
\usepackage{textcomp}
\usepackage{lmodern}
\usepackage[latin1]{inputenc}
\usepackage[swedish,english]{babel}
</demo | spik | ex1 | ex2>

```

It is reasonably simple to modify the layout of the thesis since the document class is based on the memoir class.

```

<ex1>\usepackage{nada-ex}

```

It is sometimes convenient to keep all bibliographic information in one file, this minimizes the risk that some item is corrupted.

```

<*demo | spik>
\input{kth-bibl}
</demo | spik>
<*biblio>
\title{Lorem ipsum dolor sit amet, sed diam nonummy nibh eui
      mod tincidunt ut laoreet dol}
\subtitle{Duis autem vel eum iruire dolor in hendrerit in
          vulputate velit esse molestie consequat, vel illum
          dolore eu feugiat null}
\author{Namm Namnet}
\date{maj 2003}
\thesistype{Doctoral Thesis}
\imprint{Stockholm, Sweden 2003}
\examen{teknologie doktorsexamen i datalogi}
\disputationsdatum{torsdagen den 17 maj 2003 klockan 10.00}
\disputationslokal{Kollegiesalen, Administrationsbyggnaden,
  Kungl Tekniska h\{o}gskolan, Valhallav\{a}gen 79, Stockholm}
\isbn{ISBN x-xxxx-xxx-x}
\issn{ISSN xxxx-xxxx}
\isrn{ISRN KTH/xxx/xx-{}-yy/nn-{}-SE}
\trita{TRITA xxx yyyy-nn}
\publisher{Universitetsservice US AB}
\address{KTH School of Computer Science and Communication\
  SE-100 44 Stockholm\
  SWEDEN}
\kthlogo{kth_svv_comp_science_comm}
</biblio>
<*ex1 | ex2>
\title{Lorem ipsum dolor sit amet, sed diam nonummy nibh eui
      mod tincidunt ut laoreet dol}
\subtitle{Duis autem vel eum iruire dolor in hendrerit in
          vulputate velit esse molestie consequat, vel illum
          dolore eu feugiat null}
\author{Namm Namnet}
\date{November 2003}
\blurb{Master's Thesis at NADA\Supervisor: Tjoho\Examiner: Tjohej}
\trita{TRITA xxx yyyy-nn}
</ex1 | ex2>

```

(You can of course use the characters å ä and ö in your L<sup>A</sup>T<sub>E</sub>X source file if you have specified the correct input encoding with the inputenc package.)

Having defined all bibliographic information, it is straightforward to typeset the start of the thesis.

```

<*demo | ex1 | ex2>
\begin{document}
\frontmatter
\maketitle
\input{kth-abs}
\clearpage
</demo | ex1 | ex2>
<*spik>
\begin{document}

```

```

\maketitle
\input{kth-abs}
\end{document}
</spik>

```

Again, it is convenient to have the abstract in a separate file so that it can be used both in the thesis itself and on the announcement sheets.

```

<*abstract>
\begin{abstract}
  This is a skeleton for KTH theses. More documentation
  regarding the KTH thesis class file can be found in
  the package documentation.
\end{abstract}
</abstract>

```

It is recommended that every book published in Sweden contains a summary in Swedish.

```

<*demo | ex1 | ex2>
\selectlanguage{swedish}
\begin{abstract}
  Denna fil ger ett avhandlingsskelett.
  Mer information om \LaTeX-mallen finns i
  dokumentationen till paketet.
\end{abstract}
\selectlanguage{english}
\clearpage

```

The remainder of the document is entered exactly as it would be with the «memoir» class.

```

\tableofcontents
\mainmatter

```

Now follows lots of nonsense text. We omit it in the manual...