The `thaispec` package:
Thai language typesetting in XƎLATEX

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This package allows you to input Thai characters directly to LATEX documents and choose any (system wide) Thai fonts for typesetting via XƎLATEX. It also tries to appropriately justify paragraphs with no more external tools.

Contents

1 Prerequisite

The package use `TH Sarabun New` font by default to typeset Thai characters which included in the collection of Thai national fonts [1]. At least this font must be installed to system wide in order to use this package. Moreover the following LATEX package are essentially required for the default option: `fontspec`,

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[1]Thai national fonts, a.k.a. `SIPAFonts`. See https://github.com/epsilonxe/sipafonts

ucharclasses, polyglossia, setspace, datetime2, kvoptions, afterpack
age, xstring, and xpatch.

2 Installation

The `thaispec` packages are included in all major LaTeXdistributions. In case it is
not installed, please visit https://github.com/epsilonxe/latex to download
the latest version of `thaispec.sty` and put it in your working directory.

3 Recommendation

Install the collection of Thai national font said above. Python and pygments
are also recommended to be installed to typeset Thai documents which some
syntax highlighted codes are needed.

4 Package loading

In the preamble, add the command

```
\usepackage{thaispec}
```

then you can input Thai characters in the document and typeset the document
as usual. This will typeset the document by choosing `TH Sarabun New` for all
Thai characters. The package also predefines `\today` and `\Today` for today Thai
date printing in short and long formats respectively. The Latin character will
be typeseted as usual.

5 Loading options

This section lists additional loading options by their features. Multiple options
can be loaded with the following command.

```
\usepackage[option_1, option_2, ...]{thaispec}
```

The below table lists available options in the latest version.

Table 1: Loading options in `thaispec` package.

Options	Features
thainum	Uses Thai numbers for almost all number digits which is disable by default. Use `\usepackage [thainum]{thaipsec}` to activate this option.
math	Additionally load the following packages: `mathtools`, `amssymb`, `amsthm`, `mathspec` orderly. Moreover it sets various theorem environments like definition, theorem, corollary to Thai. If your document consists of math objects, this option is then recommended. Use `\usepackage [math]{thaispec}` to activate this option.
thaifont	Choose the selected Thai font for Thai charaters typesetting. For example, use `\usepackage [thaifont = Angsana New]{thaispec}` to choose font named `Angsana New`. Note that the selected font must be installed to the system before loading the package.
sloppy	This option is for fairly better Thai justified paragraphs which is enable by default. In case this option gives a bad justified output, try `\usepackage [sloopy=false]{thaispec}` to disable this option.
thaispacing	Mostly single spacing is too tight for Thai paragraph. By defalut this package is loaded with one and a half spacing. In case this option gives a bad justified output, try `\usepackage [thaispacing=false]{thaispec}` to disable this option, i.e., This sets single spacing for all paragraphs.

Table 1: (continued) Loading options in `thaispec` package.

Options	Features
thaicaption	The package sets various captions in Thai. This includes captions of chapter, section and table of contents. It is activated by default. If you do not want this, use `\usepackage [thaicaption=false]{thaispec}` to disable this option.

6 Usage Examples

The following example is a basic example of using `thaispec` package. It is loaded with the default setting for typesetting in X$\exists$LATEX, i.e., only Thai characters are typesetted with `TH Sarabun New` font, other charaters are typesetted as usual, and paragraphs are justified by `\sloppy` macro.

```
1  \documentclass{article}
2  \usepackage{thaispec}
3  \begin{document}
4  \section{ภาษาไทย}
5  ทดสอบการพิมพ์ภาษาไทยในเอกสาร \XeLaTeX
6  \end{document}
```

In order to use another Thai font face for any charaters in a math document without `\sloppy` macro, the following example can be used to achieve the goal.

```
1  \documentclass{article}
2  \usepackage[math, thaifont = Tahoma, sloppy = false]{thaispec}
3  \begin{document}
4  \section{Math ภาษาไทย}
5  การพิมพ์ภาษาไทยในเอกสาร $ax^2+bx+c=0$
6  \end{document}
```

7 Known Issues

Incorrect Thai characters with `listing` package

If you typeset some codes consisting of Thai characters in `lstlisting` environment provided by `listing` package, this will possibly cause you a problem with incorrect Thai characters. The recommendation is choosing `minted` package instead of `listing` package. However you need to additionally install `pygments`

python module in order to use `minted` package. If you do not install `pygments`, try using

```
$ pip install pygments
```

Moreover, you need to enable shell-escape when typeset the document. For example, use

```
$ xelatex -shell-escape your-tex-file.tex
```

to typeset your tex file.

8   Credits

This package is motivated by a set of LATEX commands for typesetting Thai documents provided by Dittaya Wanvarie [2] from Chulalongkorn University.

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http://www.latex-project.org/lppl.txt

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and version 1.3 or later is part of all distributions of LaTeX version 2005/12/01 or later.

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[2]See http://pioneer.netserv.chula.ac.th/~wdittaya/ in LATEX section.