

# **smutiling.sty**: Multilinguality Support for S<sub>T</sub>E<sub>X</sub>

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## **Abstract**

The **smutiling** package is part of the S<sub>T</sub>E<sub>X</sub> collection, a version of T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X that allows to markup T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X documents semantically without leaving the document format, essentially turning T<sub>E</sub>X/L<sup>A</sup>T<sub>E</sub>X into a document format for mathematical knowledge management (MKM).

The **smutiling** package adds multilinguality support for S<sub>T</sub>E<sub>X</sub>.

## **Contents**

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>The User Interface</b>	<b>2</b>
<b>3</b>	<b>Implementation: The Smutiling Class</b>	<b>3</b>
3.1	Class Options . . . . .	3
3.2	For Language Bindings . . . . .	3

## 1 Introduction

The `smultiling` package adds multilinguality support for  $\TeX$ , it is essentially a wrapper around the `babel` package but allows specification of languages by their ISO 639 language codes.

## 2 The User Interface

The `smultiling` package accepts all options of the `babel.sty` and just passes them on to it. The options specify which languages can be used in the  $\TeX$  language bindings.

## 3 Implementation: The Smultiling Class

### 3.1 Class Options

To initialize the `smultiling` class, we pass on all options to `omdoc.cls`

```
1 <*sty>
2 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{babel}}
3 \@namedef{smul@\CurrentOption @loaded}{yes}}
4 \ProcessOptions
5 </sty>
6 <*ltxml>
7 # -*- CPERL -*-
8 package LaTeXML::Package::Pool;
9 use strict;
10 use LaTeXML::Package;
11 DeclareOption(undef,sub {PassOptions('babel','sty',ToString(Digest(T_CS('\CurrentOption')))); }
12 ProcessOptions();
13 </ltxml>
```

We load `babel.sty`

```
14 <*sty>
15 \RequirePackage{etoolbox}
16 \RequirePackage{babel}
17 </sty>
18 <*ltxml>
19 RequirePackage('babel');
20 </ltxml>
```

### 3.2 For Language Bindings

`\smg@select@language` this internal macro selects one of the registered languages by its language code. Here we only initialize it, the actual selection code is generated by the `\registerlanguage` macro.

```
21 <ltxml>RawTeX('
22 <*sty | ltxml>
23 \newcommand\smg@select@lang{}
```

`\registerlanguage` `\registerlanguage{<lang>}{<babel>}` registers the `babel` language name `<babel>` with its ISO 639 language code `<lang>` by extending the `\smg@select@language` macro.

```
24 \newcommand\registerlanguage[2]%
25 {\@ifundefined{smul@#1@loaded}{\appto\smg@select@lang%
26 {\expandafter\ifstrequal\expandafter\thelang{#1}{\selectlanguage{#2}}{}}}}
```

Now we register a couple of languages for which we have `babel` support. Maybe we have to extend this list with others. But then we have to extend the mechanisms.

```
27 \registerlanguage{af}{afrikaans}
28 \registerlanguage{de}{ngerman}
```

```

29 \registerlanguage{fr}{french}%
30 \registerlanguage{he}{hebrew}
31 \registerlanguage{hu}{hungarian}
32 \registerlanguage{id}{indonesian}
33 \registerlanguage{ms}{malay}
34 \registerlanguage{nn}{nynorsk}
35 \registerlanguage{pt}{portuguese}
36 \registerlanguage{ru}{russian}
37 \registerlanguage{uk}{ukrainian}
38 \registerlanguage{en}{english}
39 \registerlanguage{es}{spanish}
40 \registerlanguage{sq}{albanian}
41 \registerlanguage{bg}{bulgarian}
42 \registerlanguage{ca}{catalan}
43 \registerlanguage{hr}{croatian}
44 \registerlanguage{cs}{czech}
45 \registerlanguage{da}{danish}
46 \registerlanguage{nl}{dutch}
47 \registerlanguage{eo}{esperanto}
48 \registerlanguage{et}{estonian}
49 \registerlanguage{fi}{finnish}
50 \registerlanguage{ka}{georgian}
51 \registerlanguage{el}{greek}
52 \registerlanguage{is}{icelandic}
53 \registerlanguage{it}{italian}
54 \registerlanguage{la}{latin}
55 \registerlanguage{no}{norsk}
56 \registerlanguage{pl}{polish}
57 \registerlanguage{sr}{serbian}
58 \registerlanguage{sk}{slovak}
59 \registerlanguage{sl}{slovenian}
60 \registerlanguage{sv}{swedish}
61 \registerlanguage{th}{thai}
62 \registerlanguage{tr}{turkish}
63 \registerlanguage{vi}{vietnamese}
64 \registerlanguage{cy}{welsh}
65 \registerlanguage{hi}{hindi}
66 \</sty | ltxml>
67 \<ltxml>');

```