

smultiling.sty: Multilinguality Support for S_TE_X

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Abstract

The **smultiling** package is part of the S_TE_X collection, a version of T_EX/L^AT_EX that allows to markup T_EX/L^AT_EX documents semantically without leaving the document format, essentially turning T_EX/L^AT_EX into a document format for mathematical knowledge management (MKM).

The **smultiling** package adds multilinguality support for S_TE_X.

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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 macro selects one of the registered languages by its language code by setting the internal `\smg@lang` macro to the argument and then runs the actual selection code in `\smg@select@lang`. This internal code register is only initialized there, the code is generated by the `\smg@register@language` macro below.

```
21 <ltxml>RawTeX('
22 <*sty | ltxml>
23 \newcommand\smg@select@lang{}
24 \newcommand\smg@select@language[1]{\def\smg@lang{#1}\smg@select@lang}
```

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

```
25 \newcommand\smg@register@language[2]%
26 {\@ifundefined{smul@#1@loaded}{\appto\smg@select@lang%
27 {\expandafter\ifstrequal\expandafter\smg@lang{#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.

```

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

```