

DATA INTERNATIO- NALIZATION IN DJANGO

} "i18n"

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INTERNATIO- NALIZATION } "i18n" IN DJANGO

```
{% load i18n %}  
{% trans "Hello world" %}
```

```
from django.utils.translation import ugettext as _  
  
print(_("Hello world!"))
```

<https://docs.djangoproject.com/en/1.10/topics/i18n/translation/>

pre tix

Demo Conference June 11th – 13th, 2017



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```
pip install ...
```

django-parler, django-hvad,
django-nece, django-modeltranslation,
django-i18nfield, django-klingon,
django-translatable, django-multilingual-model,
django-linguo, transdb, django-multilingual,
django-transmeta, django-multilingual-ng,
django-datatrans, django-vinaigrette,
django-slim, django-multilingualfield,
simple-translation, django-mothertongue,

...



WHAT WE WANT TO KNOW

- How is the data stored?
- How does their API look like?
- What features are provided?
- How large is the performance impact?

DATABASE LAYOUT

STYLE 1: SEPARATE TABLE

id	year
1	2009

master_id	lng	title
1	en	Angels and daemons
1	it	Angeli e demoni

used by: django-hvad, django-parler, klingon*

* one table for all, GenericForeignKey

STYLE 2: SEPARATE FIELDS

id	year	title_en	title_it
1	2009	Angels and daemons	Angeli e demoni

used by: django-modeltranslation

STYLE 3: COMPOUND FIELDS



id	year	title
----	------	-------

1	2009	{"en": "Angels and demons", "it": "Angeli e demoni"}
---	------	--

used by: django-i18nfield, nece

MODEL DEFINITION

STYLE 1: CUSTOM BASE CLASS



```
class Movie(TranslatableModel):  
    translations = TranslatedFields(  
        title = models.CharField(max_length=190)  
    )  
    year = models.IntegerField()
```

or

```
class Movie(TranslationModel):  
    title = models.CharField(max_length=190)  
    year = models.IntegerField()  
  
    class Meta:  
        translatable_fields = ('title',)
```

used by: django-hvad, django-parler, klingon,
nece

STYLE 2: CUSTOM FIELD TYPE



```
class Movie(models.Model):  
    title = I18nCharField(max_length=190)  
    year = models.IntegerField()
```

used by: django-i18nfield

STYLE 3: REGISTRATION-BASED



```
class Movie(models.Model):  
    title = models.CharField(max_length=190)  
    year = models.IntegerField()
```

```
@register(ModeltransMovie)  
class MovieTranslationOptions(TranslationOptions):  
    fields = ('title',)
```

used by: django-modeltranslation

OBJECT INTERACTIONS

STYLE 1: ONE AT A TIME

```
o = Movie.objects.language('it').first()
print(o.title)  # Angeli e demoni
o.set_current_language('en')
print(o.title)  # Angels and demons
```

used by: django-hvad, django-parler, nece

STYLE 2: ALL AT ONCE

django-modeltranslation:

```
translation.activate('it')
o = Movie.objects.first()
print(o.title)    # Angeli e demoni
print(o.title_en) # Angels and daemons
```

django-i18nfield:

```
translation.activate('it')
o = Movie.objects.first()
print(o.title)    # Angeli e demoni
print(repr(o.title)) # {'it': Angeli e demoni,
                    #   'en': 'Angels and daemons'}
print(o.title.localize('en')) # Angels and daemons
```

STYLE 3: EXPLICIT

```
translation.activate('it')
o = Movie.objects.first()
print(o.title)    # Angels and demons
print(o.get_translation('it', 'title'))  # Angeli e demoni
```

used by: django-klinton

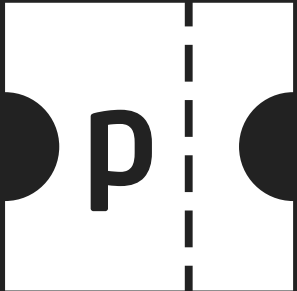
	parler	hvad	klington	modeltrans...	nece	i18nfield
DB layout style						
Database support						
Filtering						
Model definition						
Object operations						
Forms support						
Admin support						
Performance						

 raphaelm/django-i18n-demoapp

GRAZIE MILLE!



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