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**proteus**  
*Release 6.8*

**unknown**

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A library to access Tryton's models like a client.



## EXAMPLE OF USAGE

```
>>> from proteus import config, Model, Wizard, Report
```

### 1.1 Configuration

Configuration to connect to a sqlite memory database using trytond as module.

```
>>> config = config.set_trytond('sqlite:///memory:')
```

There is also the `config.set_xmlrpc` method which can be used to connect using a URL, and the `config.set_xmlrpc_session` method (when used as a context manager) which connects for a session.

### 1.2 Activating a module

Find the module, call the activate button and run the upgrade wizard.

```
>>> Module = Model.get('ir.module')
>>> party_module, = Module.find([('name', '=', 'party')])
>>> party_module.click('activate')
>>> Wizard('ir.module.activate_upgrade').execute('upgrade')
```

### 1.3 Creating a party

First instantiate a new Party:

```
>>> Party = Model.get('party.party')
>>> party = Party()
>>> party.id < 0
True
```

Fill the fields:

```
>>> party.name = 'ham'
```

Save the instance into the server:

```
>>> party.save()
>>> party.name
'ham'
>>> party.id > 0
True
```

## 1.4 Setting the language of the party

The language on party is a Many2One relation field. So it requires to get a Model instance as value.

```
>>> Lang = Model.get('ir.lang')
>>> en, = Lang.find([('code', '=', 'en')])
>>> party.lang = en
>>> party.save()
>>> party.lang.code
'en'
```

## 1.5 Creating an address for the party

Addresses are store on party with a One2Many field. So the new address just needs to be appended to the list addresses.

```
>>> address = party.addresses.new(postal_code='42')
>>> party.save()
>>> party.addresses
[proteus.Model.get('party.address')(...)]
```

## 1.6 Adding category to the party

Categories are linked to party with a Many2Many field.

So first create a category

```
>>> Category = Model.get('party.category')
>>> category = Category()
>>> category.name = 'spam'
>>> category.save()
```

Append it to categories of the party

```
>>> party.categories.append(category)
>>> party.save()
>>> party.categories
[proteus.Model.get('party.category')(...)]
```



## 1.7 Print party label

There is a label report on Party.

```
>>> label = Report('party.label')
```

The report is executed with a list of records and some extra data.

```
>>> type_, data, print_, name = label.execute([party], {})
```

## 1.8 Sorting addresses and register order

Addresses are ordered by sequence which means they can be stored following a specific order. The `set_sequence` method stores the current order.

```
>>> address = party.addresses.new(postal_code='69')
>>> party.save()
>>> address = party.addresses.new(postal_code='23')
>>> party.save()
```

Now changing the order.

```
>>> reversed_addresses = list(reversed(party.addresses))
>>> while party.addresses:
...     _ = party.addresses.pop()
>>> party.addresses.extend(reversed_addresses)
>>> party.addresses.set_sequence()
>>> party.save()
>>> party.addresses == reversed_addresses
True
```

## 1.9 Setting context

Make French translatable:

```
>>> Language = Model.get('ir.lang')
>>> french, = Language.find([('code', '=', 'fr')])
>>> french.translatable = True
>>> french.save()
```

Create a category in English:

```
>>> Category = Model.get('party.category')
>>> with config.set_context(language='en'):
...     category = Category(name="Category")
...     category.save()
```

Translate in French:

```
>>> with config.set_context(language='fr'):  
...     category_fr = Category(category.id)  
...     category_fr.name = "Categorie"  
...     category_fr.save()
```

Read in English:

```
>>> category.reload()  
>>> category.name  
'Category'
```

Read in French:

```
>>> category_fr.reload()  
>>> category_fr.name  
'Categorie'
```

### 1.9.1 Release notes

#### Version 6.8.0 - 2023-05-01

- Bug fixes (see mercurial logs for details)
- Remove support for Python 3.7
- Add support for Python 3.11
- Manage RPCReturnException
- Run action from button

#### Version 6.6.0 - 2022-10-31

- Bug fixes (see mercurial logs for details)

#### Version 6.4.0 - 2022-05-02

- Bug fixes (see mercurial logs for details)
- Use unittest discover
- Support notification message
- Use defusedxml to parse XML (11244)
- Add support for Python 3.10
- Remove support for Python 3.6

### **Version 6.2.0 - 2021-11-01**

- Bug fixes (see mercurial logs for details)
- Support session with XML-RPC
- Use bigdecimal tag for XML-RPC

### **Version 6.0.0 - 2021-05-03**

- Bug fixes (see mercurial logs for details)
- Add support for Python 3.9
- Unify PYSON string format

### **Version 5.8.0 - 2020-11-02**

- Bug fixes (see mercurial logs for details)
- Remove support for Python 3.5
- Support PYSON comparison of date and datetime

### **Version 5.6.0 - 2020-05-04**

- Bug fixes (see mercurial logs for details)
- Add support for Python 3.8
- Use same `__str__` as trytond instances

### **Version 5.4.0 - 2019-11-04**

- Bug fixes (see mercurial logs for details)
- Support dot notation on PYSON Eval
- Add `__slots__`

### **Version 5.2.0 - 2019-05-06**

- Bug fixes (see mercurial logs for details)
- Remove support for Python 3.4

**Version 5.0.0 - 2018-10-01**

- Bug fixes (see mercurial logs for details)
- Add support for Python 3.7
- Remove support for Python 2.7

**Version 4.8.0 - 2018-04-23**

- Bug fixes (see mercurial logs for details)
- Always use the context and config of the instance
- Add support for search\_\* attributes in ModelList

**Version 4.6.0 - 2017-10-30**

- Bug fixes (see mercurial logs for details)
- Add set\_sequence method to ModelList
- Add \_\_int\_\_ to Model
- Allow to use keyword arguments with trytond configuration

**Version 4.4.0 - 2017-05-01**

- Bug fixes (see mercurial logs for details)

**Version 4.2.0 - 2016-11-28**

- Bug fixes (see mercurial logs for details)
- Fill default Report data

**Version 4.0.0 - 2016-05-02**

- Bug fixes (see mercurial logs for details)
- Add Python3 support

**Version 3.8.0 - 2015-11-02**

- Bug fixes (see mercurial logs for details)
- Add StateAction support to Wizard

### Version 3.6.0 - 2015-04-20

- Bug fixes (see mercurial logs for details)
- Add support for PyPy
- Allow to provide extra keyword arguments to `set_xmlrpc()`
- Add support of `fields.TimeDelta`
- Remove password on `set_trytond`
- Manage reload, save, delete, duplicate and click as class and instance method

### Version 3.4.0 - 2014-10-20

- Bug fixes (see mercurial logs for details)
- New configuration syntax
- Add Report
- Explicitly set value of parent field
- Add duplicate method

### Version 3.2.0 - 2014-04-21

- Bug fixes (see mercurial logs for details)
- Models cache depends also on user
- Drop support of Python 2.6
- Allow to pass field values to new method
- Add click method for buttons

### Version 3.0.0 - 2013-10-21

- Bug fixes (see mercurial logs for details)

### Version 2.8.0 - 2013-04-22

- Bug fixes (see mercurial logs for details)
- Add support of `fields.Dict`

**Version 2.6.0 - 2012-10-22**

- Bug fixes (see mercurial logs for details)

**Version 2.4.0 - 2012-04-23**

- Bug fixes (see mercurial logs for details)
- Use loading attribute
- Add support of \_buttons
- Add support of fields.Time

**Version 2.2.0 - 2011-10-25**

- Bug fixes (see mercurial logs for details)
- Change license to LGPL-3
- Drop support of Python 2.5

**Version 2.0.0 - 2011-04-28**

- Bug fixes (see mercurial logs for details)
- Manage default values of trytond configuration

**Version 1.8.0 - 2010-12-24**

- Initial release