

# *easyObject*

modern web applications made easy

## Project presentation

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## The project in a few words

easyObject is a solution which applicative core, written in PHP5, is an ORM (Object-Relational Mapping) allowing to ensure handling and persistence of objects by associating classes to the tables of a relational database. The peculiarity of easyObject is to propose an API which is independent from the used language, what makes it a solution well suited for web applications. In other words, it is a web-oriented ORM or WORM.

easyObject is a solution that :

- is accessible to the majority ;
- does not require an important amount of time for its installation and its learning;
- enables to ensure common tasks of most web applications very easily  
*(handling of any kind of content, rights management, URL rewriting, logging, internationalization, drafting, versioning, publishing, caching, accidental deletion recovery).*

easyObject is released under open source license GNU GPL 3.0.

## Technical data

### Common software configuration

- PHP 5.3 +, default configuration with MySQL support
- Apache 1.3 +, default configuration with PHP support
- MySQL 5.1+

### Basic Installation

- 1) download
- 2) uncompress
- 3) customize config file

### Very intuitive use

#### **3 types of operations**

- DO requests: do something (create, modify, remove, ...)
- GET requests: return something (list, field, translation, ...)
- SHOW requests: display something (page, form, graph, app, ...)

#### **4 methods**

- browse : get the value of the fields of one or more objects
- search : find objects matching some criteria
- update : change the value of one or more objects / create a new object
- remove : remove one or more objects

#### **3 languages for the developer**

- PHP : knowing basic syntax is enough (for the rest, see examples and documentation)
- HTML : if you can create DIV and SPAN tags, you'll be all right
- JS/JSON : knowledge of Javascript is not mandatory and JSON is more a syntax than a language

## More details

### ***Introduction***

easyObject is a simple though robust tool, easy to get started with and which goal is to allow to ensure common tasks of most modern web applications very easily. In concrete terms, it is an open source framework for web applications similar to an ORM, written in PHP5 and using jQuery for the UI, inspired by the open source initiatives OpenERP, easyCMS and KnINE.

### ***Basic principles***

The main role of the easyObject platform is to ensure the persistence of objects by associating classes to the tables of a relational database. That is to say to establish a match between objects (instances of classes) and records (rows of a table).

The goal being to allow the application developer to focus on objects definitions and interactions rather than on the software layer allowing their persistence and management.

Thus, this tool offers the web developer a series of methods usable in any language (so far PHP and Javascript) and eases his job while handling objects.

### ***Why PHP ?***

PHP being a web-oriented language widely spread and LAMP platforms (Linux, Apache, MySQL, PHP) being very common, the installation process is from the beginning greatly simplified.

In addition, the object oriented functionalities proposed by PHP (5.3+) allow a satisfying level of flexibility and precision. Finally, the server side is written in PHP but the phpRPC interface allow to use the API with any language (which is the case by default for the web interface that calls the easyObject API through the javascript ajax functionalities).

### ***Why a new project ?***

Good question, given that there are already several PHP open source ORM implementations (CakePHP, Doctrine, FuelPHP, pdoMap, Propel, ...).

This initiative distinguishes itself by the fact that it proceeds from a will to propose a solution:

- that is accessible, reliable, light and robust, in its conception as well as in its use;
- that covers natively needs common to most web applications  
(*handling of any kind of content, rights management, URL rewriting, logging, internationalization, drafting, versioning, publishing, caching, accidental deletion recovery*);
- that handle all the aspects related to objects management (definition, interactions, consultation, edition, validation);
- that does not belong to a commercial company.

## ***Philosophy***

In addition the main idea of this project is simplicity. We should stay sober and only say « KIS », but let's be a little bit more explicit :

- ***High abstraction level***  
Source code simple but not necessarily easy. To ease its understanding, the complexity is covered by an abundant documentation
- ***As few involved languages as possible***  
The quantity of involved languages is kept as low as possible (PHP, SQL, Javascript, JSON, HTML) and especially the number of languages that the user-developper has to manipulate (actually limited to PHP and HTML).
- ***Flexibility***  
Keeping things simple also means allowing developer to do things the way he feels or the way it is the most useful for him (and even in the language he choose)
- ***Fail-safe but not foolproof***  
The responsibility for a correct use of the code is left to the application developer.
  - o The program is not designed to work no matter what : if some invalid value is detected in functions parameters, the script stops, giving some (gentle) information about what went wrong.
  - o No automation mechanism : for instance, no synchronisation nor matching verification is done between object description in the class files and in the database.

Note : stand-alone scripts (which actions are not covered by the API) allow, among other things, to fulfill the following tasks :

- Create a database following a SQL schema
- Generate a PHP class from an existing table
- Check consistency between database and classes definitions
- Check syntax of classes, templates and translation files

## ***Project origins***

Although easyObject is a solution which applicative core is an ORM, the first motivation of the approach that the project originates with is the development of web-oriented collaborative tools related to the themes of solidarity, knowledge reacquisition and responsible evolution.

As those tools are not clearly defined and as they have to be capable to evolve quickly, the idea came out to develop a solution that could answer the needs of evolutive applications, that would not necessarily be very complex, that would not have an especially long lifespan, that could be developed quickly and maintained by volunteers with no particular skills in application development.

So, we needed a highly flexible solution allowing to ensure easily the basic operations required by most web application.

Given that the result is effectively rather intuitive, robust and versatile, it sounded natural to make it available to anyone.

The project was open source from the beginning, but additional efforts were made in order to make it a fully free solution (code available on sharing platforms, documentation, validation systems).

