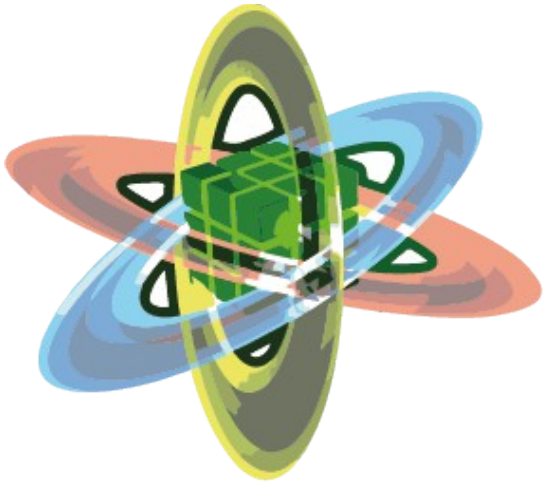

MATRIX
WebEngine

MATRIX WEB ENGINE V 1.0

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Summary

1.General Description.....3

2.Logical Organisation.....

3.Technologies And Pre-Requisites...

4. File Tree and Description.....

5. Data Model.....

6. Functions List and Description.....

7. Compatibility.....

8. Tutorial Examples.....

1.GENERAL DESCRIPTION

Matrix WebEngine is a Web Application Creation Framework using in a secure way as possible Web 2.0 Technologies to make easier the Applications Process Creation.

Matrix WebEngine is organised around **MVC Pattern** (Model View Controller) separating Data recorded in a DataBase, Layout and Graphic Ressources , Generic Data Treatment (Authentification etc...) and Application-Specific Data Treatment. Application Data Treatment Modules would be separated into a logical way.

The **Model Part** include Source Code dealing with the Data Model in order to make abstract as possible Acess to the Data and the DataBase.

The **View Part** Manages The Layout of The Application trough Theming, Templating and a WYSIWYG Editor; It's Possible to Modify Entirely the Application Look with the Associated Graphic Files Associated.

The **Controller Part** is in Charge of Dynamic Data Treatments. We could subdivide Controller Part into 3 parts :

-The "Generic" Part (Authentification etc...)

-The Application-Specific Part.

-The Plugins

2.LOGICAL ORGANISATION

Matrix Web Engine Handles following Logical Concepts:

- CMS
- User
- Internationalisation
- Routing
- Theming, Templating
- Dynamic UI Creation Made Easier
- Evolutive Specifications
- Authentification
- Chopping,Salting,Crypting, Security Token
- Actions
- Errors
- Events
- States
- Log
- Modularisation
- WYSIWYG Layout Edition
- Graphic Edition Backend

3.TECHNOLOGIES AND PRE-REQUISITES

3.1 Pre-Requisites

In Order to get an effective understanding of Matrix WebEngine you may have the following pre requisites:

-**MVC Pattern** (*https://en.wikipedia.org/wiki/Model-view-controller)*

-**HTML5 Marking** *(http://www.w3schools.com/html/html5_intro.asp)*

-**CSS3 Cascading Styles** *(http://www.w3schools.com/css/css3_intro.asp)*

-**PHP5 Programming Language** *(http://www.php.net/manual/fr/)*

-**JavaScript Programming Language** *(http://www.w3schools.com/js/default.asp)*

-**JQuery Library** *(http://www.w3schools.com/jquery/default.asp)*

-**JqueryUI Interfaces** *(https://jqueryui.com/)*

3.2 Technologies

Matrix WebEngine is based around the following Free Technologies:

- PHP

- MySQL

- HTML5+CSS3

- JQuery + JQueryUI

3.3 Third Part Librairies

- D3js
- Jq.MapJS
- Jq.jsGantt
- Jq.ColorPicker
- Jq.GradientGen
- Jq.CalendarGantt
- Jq.CountDown
- Jq.NiceEdit
- Jq.SlickGrid
- Jq.JsTree

4. FILE TREE AND DESCRIPTION

Lower Case is used in order to maximize Compatibility.

- **css/**: Cascading Style Sheets Files for Application Layout

- **doc/**: Technical Doc (This File) and general purposes tutorials

- **files/**: Edit files, Upload Jail

- **imgs/**: Pictures File

- **includes/**: Matrix WebEngine Framework

- **js/**: *.js JavaScript and Jquery/JqueryUI files

- **modules/**: Data Treatment *.php files

- **sql/**: MySQL DataBase Structure and Base Data

- **templates/**: Views Templates

- **index.php** : General Client FrontEnd

- **MatrixEngine.Licence** : GPL V3 Licence (en Version)

- **MatrixEngine.README.fr** : French README

- **MatrixEngine.README.en** : English README

5.DATA MODEL

Matrix WebEngine uses "NameSpaces" in MySQL tables naming in order to organise Concepts and Data:

- 'sys.*' System Name Space
- 'ev.*' Events Name Space
- 'i18n.*' Internationalisation Name Space
- 'ud.*' User Data Name Space
- 'plugin.*' Plugins Name Space
- 'logger.*' Logging Name Space

6.FUNCTIONS LIST AND DESCRIPTION

6.0 Db Function

mapped_db_query(

```
$RequestType='s' ,  // Request Type ('s'>SELECT,'i'>INSERT,'u'>UPDATE)
$DbEnv , // NameSpace
$Table , // Table
$Fields=array() , // Target Fields
$Values=array() , // Values for Target Fields
$ConditionFields=array() , // Confition Fields
$ConditionVals=array() , //Values to match for Condition Fields
$mysqli=null ) // Connexion Handler
```

6.1 System Functions

6.1.1

function

6.2 Internationalisation Functions

6.2.1

function

6.3 UI (Interface) Functions

6.3.1

function

7.COMPATIBILITY

- Google Chrome Last Version
- Windows Iexplorer 10>
- Android Browser

8.TUTORIALS AND EXAMPLES

8.1