URBAN WASTE WATER TREATMENT DIRECTIVE

TOWARD A NEW INFORMATION SYSTEM

SIIF
(Structured Implementation and Information Framework)

UWWTD SIIF national toolbox (version 2014): Installation and configuration

Version 1.0
March 2015

Service Contract for the support to the Implementation of Directive 91/271/EEC on Urban Waste Water Treatment

Date: 10 March 2015
Authors: Benoît Fribourg-Blanc, Nicolas Dhuygelaere, Laurence Guédet
                (OIEau),

This document has been produced by OIEau.

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1   Introduction

This document is presenting how to install the UWWTD SIIF Toolbox 2014 on a national server.

2   General installation:

In order to install the UWWTD SIIF website in your own environment, you need three main modules:
- the database : Postgres 8.4 or 9.x with Postgis extension (version > 1.5) ,
- the website : Drupal 7,
- the map server : Geoserver.

The machine which will be used to host the web portal as well as the webservice features, has the following configuration:

- The physical configuration should be at least: - disk : 20 Go- RAM : 2Go- CPU : 2 minimum- partition : 1
- Linux (ideally centos 6) /Red Hat server with at least 2 Go of RAM,
- some development tools,
- an Apache 2 - *Tomcat 8.0.12* webserver with PHP 5.3.3,
- the GeoPHP libraries,
- uploadprogess and dbase pecl modules,
- the installation kit with database dump and website sources
- for the database management : postgres 8.4 ou 9 and postgis 1.5 ou 2
- for the web services module(flat ones) : Geoserver 2.5 or Mapserver

You can install development tools, apache and php with this shell's command under "root" user:

```
yum groupinstall 'Development Tools'
yum install httpd php php-devel php-pear php-pgsql
pecl install dbase
pecl install uploadprogress
```

For GeoPHP installation, you can follow this guide: https://github.com/phayes/geoPHP/wiki/Geos-installation-on-centos6

To start the apache service, you can use the following command under "root" user:
```
service httpd start
OR (if the previous command line does not work)
service apache start
```

For auto-starting the apache server on the server reboot, use this command
```
chkconfig httpd on
```

2.1   Website installation

At first, you need to make some modifications in your PHP settings. Edit your "php.ini" file (located in the /etc/php.ini), and change the following parameters:
- memory_limit = 1024M
- max_execution_time = 30

- post_max_size = 100M
- file_uploads = On
- upload_max_filesize = 100M
- allow_url_fopen = On
- date.timezone = "Europe/Paris"   #Use your timezone

And at the end of the php.ini file copy/paste these lines:
- extension=dbase.so
- extension=uploadprogress.so

For debugging, but not in production mode, you can change these lines:
- error_reporting = E_ALL
- display_errors = On

Save your php.ini file and then restart the Apache server with this command:
```
service httpd restart
```

2.2   Create a new PostgreSQL database:

To correctly install the SIIF platform a PostgreSQL database must be used. Any database name can be used but we suggest using a name you can remember as you will need this information at a later stage.

2.3   Import the SQL structure to your database:

The next step involves inserting the premade SQL structure to your platform. We provided you with an *'uwwtd_structure.sql'* file, it's this file that needs to be added to your newly created database. You can in-stall this in whatever manner you prefer but please check if the file was imported correctly as it is vital to the overall installation of the platform.
```
psql -U postgres - d name of the database -f uwwtd_structure.sql
```

2.4   Copy files to server directory:

Now you have the database correctly setup we need to add all the source files to your server directory. To do this simply unzip the '*uwwtd_files.zip'* file into your web directory.

2.5   Allow access to your public directory:

Drupal, the CMS used by the platform SIIF, needs to access certain directories of your server to function correctly.
First you need to copy the "uwwtd" directory (in the website directory of the installation kit) into the root of your Apache server. On Centos server, the root directory of Apache server is "/var/www/html".

Then, you need to change write access to full access (read, write, execute) for 'apache' to the directory *'sites/default/files'* and all of its children directories.
Drupal needs to have "write" access on the "sites" directory located at root of Drupal folder. You can do this with this command:
```
chown -R apache:apache /var/www/html/uwwtd/sites
chmod -R 777 /var/www/html/uwwtd/sites/default/files
```

2.6 Modify the settings.php file:

If you installed your Postgres database on the same server as your website, your connection settings could be:

```
$databases = array (
  'default' =>
  array (
    'default' =>
    array (
      'database' => 'uwwtd',
      'username' => 'postgres',
      'password' => 'postgres',
      'host' => 'localhost',
      'port' => '5432',
      'driver' => 'pgsql',
      'prefix' => 'drupal_',
    ),
  ),
);
```

PS: the use of "postgres" user for a production website is not recommended.

Now, in theory you can access to your website, with a web browser with this url:
http://[ip.of.the.server]/uwwtd/

Finally, you have to customise the Apache configuration of your website to allow for URL rewriting and set-up your domain name. We recommend you to create a file, eg "uwwtd.conf" in the /etc/httpd/conf.d directory and add the following content (you have to change the ip and the domain name):

```
<VirtualHost 192.168.1.40:80>
 ServerName uwwtd.domain.eu
    ServerAdmin contact@domain.eu
    DocumentRoot /var/www/html/uwwtd

    <Directory "/var/www/html/uwwtd">
        AllowOverride All
        Options indexes
        IndexOptions FancyIndexing IconsAreLinks FoldersFirst HTMLTable
    </Directory>

</VirtualHost>
```

Save your uwwtd.conf file and then restart the Apache server with this command:
```
service httpd restart
```

Your website is ready and can be reached with your own domain name, such as: http://uwwtd.domain.eu

The next step is to link the files to your newly created database. You will need to edit the settings.php file located in the relative directory *'sites/default/settings.php'*.

Once opened find the uncommented line with the following code:

```
$databases                        =                   array                    (
  'default'                                                                    =>
  array                                                                         (
    'default'                                                                  =>
    array                                                                       (
      'database'                       =>                      'drupal_siif',
      'username'                        =>                          username,
      'password'                        =>                        'password',
      'host'                         =>                       '192.168.1.2',
      'port'                          =>                             '5432',
      'driver'                         =>                             'pgsql',
      'prefix'                         =>                           'drupal_',
    ),
  ),
);
```

You will now need to replace all of the information contained in this php array by your database characteristics. 'database' is the name of your new database, 'username' is your PostgreSQL admin username, 'password' is your PostgreSQL admin password, 'host' is the IP address of your PostgreSQL server, 'port' is the port of your PostgreSQL server, 'driver' is the type of database used (do not modify) and 'prefix' is the prefix for your PostgreSQL tables (do not modify).

2.7   Log in to your site and empty any cache:

The next step is to log into your SIIF platform by entering the URL to your website followed by the path /user (ex: www.YOURWESITE.com/user) into your browser. Once on the page please enter your login and password, as this is your first time on the platform your login is 'admin' and your password is 'password'.

PLEASE CHANGE THESE AS SOON AS POSSIBLE.

You will now be presented with a menu at the top of the screen. This menu is the admin menu and will allow you to alter your entire platform to your likings. To clear all the cached data on your platform please hover your mouse over the Drupal logo situated to the far left of the admin menu and click on 'flush all caches'.

NOTE: If you encounter a white screen after connecting to your website for the first time, please go to www.YOURWESITE.com/data, click the update page then perform the updates. Your platform should function correctly afterwards.

3   Country specific configuration:

3.1   Change the name of your SIIF platform:

To change the name of your SIIF platform go to the following page: www.YOURWEBSITE.com/ /admin/config/system/site-information. Once on the page to change the name of your platform edit the field named *'Site name'* and click *'save configuration'*.

3.2 Change the logo of your SIIF platform:

To change the logo of your SIIF platform go to the following page: www.YOURWEBSITE.com/ /admin/appearance/settings/uwwtd. Once on the page you will notice a few tabs on the left side of the page. Choose *'logo image settings'* uncheck the checkbox *'Use the default logo'* and enter the path to your file or choose to upload it directly.

To remove the logo completely return to the page: www.YOURWEBSITE.com/ /admin/appearance/settings/uwwtd, choose the tab *'toggle display'* and uncheck the checkbox *'logo'*.

When you have finished your modifications please click the button *'Save configuration'*.

3.3 Add a national language:

To add a new language to your website go to the following page: www.YOURWEBSITE.com/ admin/config/regional/language. This page displays all the active languages for your platform which you can choose to remove or set as the default language. To add a new language click the link *'Add language'* choose from the dropdown menu '*Language name'* then click the button *'Add language'*.

4 Data submission:

4.1 Import the raw data:

To commence the publication of a new dataset for a given year you will first need to head to the following page: www.YOURWESITE.com/data. The first thing you will notice is that you need to choose a year. Make sure that the year chosen is correct as it will affect the rest of the import process.

On the next page you will be asked to upload the dataset, to do so please choose the file browser presented to you. Once happy with the file you have chosen click the *'Submit'* button.

NOTE: ONLY XML OR ZIP FILES ARE ALLOWED. IF USINGS A ZIP MAKE SURE THERE ARE ONLY CSV FILES COMPRESSED INSIDE OF IT.

The next part takes a while as the server is processing your raw data into usable information. Once finished press the link *'continue'* to proceed to the next step.

4.2 Import sensitive area shapes:

For this step you should be at the following page: www.YOURWEBSITE.com/data/shapes.

To allow people to see your sensitive area on the maps you will need to upload the files containing the relative geographical files. To do this please choose the file from file browser presented to you.

NOTE: ONLY ZIP FILES ARE ALLOWED. THE ZIP MUST INCLUDE ALL THE SHP FILES AND THEIR NECESSARY FILES.

The next part takes a while as the server is processing your raw data into usable information. Once finished press the link *'continue'* to proceed to the next step.

4.3 Dataset conformity verification

For this step you should be at the following page: www.YOURWEBSITE.com/data/conformity.

This page will check the conformity of your agglomerations and waste water treatment plants. Arriving on the page you *may* notice a list of agglomerations accompanied by checkboxes. These correspond to the special article 5 criterion. Please confirm here whether or not the agglomerations require verification for these criterion.

If you are not presented with a list of agglomerations it is because the dataset doesn't contain any agglomerations eligible for these criterion.

To begin the conformity verification press the button *'Submit'*. Please note that this step will likely take a while to perform.

4.4   Perform a flush of all the cached data:

To clear all the cached data on your platform please hover your mouse over the Drupal logo situated to the far left of the admin menu and click on 'flush all caches'.

5   Article 17 information:

5.1   Create your csv files:

To insert article 17 information you will need to first create correct csv files. To begin this step please go to the following page: www.YOURWEBSITE.COM/data/article17.

Once on this page you will notice two links to files that you need to download. One is for the agglomerations and the other for the waste water treatment plants. Once downloaded please proceed to open them in OpenOffice Calc or Libre Office Calc. When opening make sure to select the type of character encoding as UTF-8. The separator as a semi-colon (;) and the text separator as a comma (,).

The files contain an example of the output needed for your files to function correctly with the SIIF platform. Please fill out the files with all your information in the same manner and then save them in the same format as the example.

5.2   Upload the new csv files:

Next upload one of the two newly created csv files using the file browser and click the *'submit'* button. Once completed repeat with the second file.