Installation of ABCD in WAMP

Introduction

This guide will illustrate and give instructions on how to install the ABCD software based on a WAMP istallation. It is perfectly possible to integrate both types of applications and run both 'normal' Apache/PHP-based applications (e.g. phpMyAdmin, Drupal,…) and ABCD at the same time with the same basic configuration.

The only skill required really is to locate and edit text-files with a text-editor like Notepad.

ABCD is the ISIS-based integrated library automation software which also allows automating documentation centres and other types of collections, due to its built-in flexibility and powerful functions. A standard installation of ABCD (mostly done by simply unpacking the installation package file) contains not only the ABCD-scripts and databases (in the www-folder) but also a folder for Apache and a folder for PHP. After configuring ABCD correctly as instructed here with WAMP, both the PHP and Apache folder in principle can be removed from the ABCD-installation.

WAMP stands for 'Windows Apache MySQL and PHP), a very popular package of often combined softwares to run web-based applications. Apache is the web-server, MySQL the database in which values from which dynamic websites can be created are stored and PHP is the scripting language to create the web-pages. Normally WAMP comes with its own full installer executable (or .msi file) which indeed installs the Apache webserver, MySQL (server and client) and PHP. On top of that WAMP offers – and this is a major added-value – a 'WAMP-manager' icon in the taskbar from where not only all the services can be (re-)started or stopped, but also the main settings for all three services can be accessed and managed. E.g. php.ini (PHP settings) and httpd.conf (Apache webserver configuration) and my.ini (settings for MySQL) are directly accessible, also version information for all three servers is available and direct access is given to phpMyAdmin.

1. Configuring Apache webserver with virtual hosts

The main solution we propose is to configure Apache webserver, as part of WAMP, with virtual hosts settings.

This requires two steps, supposing the installed Apache version is 2.2.17 (change when appropriate to your actual version !) :

2. Including the virtual-hosts settings file and moving the virtual host settings from the basic settings :

   a. open (with any text-editor, e.g. Notepad) the file \wamp\bin\apache\Apache2.2.17\conf\httpd.conf

   b. remove (or de-activate by putting the '#' comment sign in front) the following statements, since we don't want to keep them in the basic configuration for all applications :

      i. Listen 80

      ii. DocumentRoot "c:/wamp/www/"

      iii. ScriptAlias /cgi-bin/ "cgi-bin/"

   c. remove the '#' before the 'include' statement in the following section towards the end, in order to activate the statement and make the virtual hosts configuration active :

      # Virtual hosts

      Include conf/extra/httpd-vhosts.conf processed.

   d. Save the file httpd.conf

3. Edit the virtual hosts settings in the file extra\httpd-vhosts.conf (with any text-editor) in order to make it contain the following two sections, one for the default host with port 80, one for the ABCD-dedicated port 9090 :

   a. Create the two virtual hosts with their resp. 'listening port' :

      NameVirtualHost *:80
      Listen 80
      NameVirtualHost *:9090
      Listen 9090

   b. Define the settings for default virtual host by adding the following lines :

      <VirtualHost *:80>
      ServerRoot "c:/wamp/bin/apache/apache2.2.17"
      DocumentRoot "/wamp/www/"
      <Directory "c:/wamp/www/">
         Options Indexes FollowSymLinks MultiViews
         AllowOverride all
            Order Deny,Allow
               Deny from all
               Allow from 127.0.0.1

```
                    </Directory>
                       ScriptAlias /cgi-bin/ "cgi-bin/"
                    <Directory "cgi-bin">
                       AllowOverride None
                       Options None
                       Order allow,deny
                       Allow from all
                    </Directory>
                    PHPIniDir "c:/wamp/bin/php/php5.3.4"
                    </VirtualHost>
```

c. Create a section for the ABCD-port 9090 virtual host, by adding the following lines :

```
                    <VirtualHost *:9090>
                    ServerRoot "c:/abcd/apache2.2"
                    DocumentRoot "/ABCD/www/htdocs"
                    <Directory "c:/ABCD/www/htdocs/">
                       Options Indexes FollowSymLinks MultiViews
                       AllowOverride all
                          Order Deny,Allow
                             Deny from all
                             Allow from 127.0.0.1
                    </Directory>
                    ScriptAlias /cgi-bin  "/ABCD/www/cgi-bin/"
                    <Directory "/ABCD/www/cgi-bin/">
                       AllowOverride None
                       Options None
                       Order allow,deny
                       Allow from all
                    </Directory>
                    #PHPIniDir "/ABCD/php"
                    # next 2 lines are only for ABCD EmpWeb
                    ProxyPass /empweb/ http://localhost:8080/empweb/
                    ProxyPassReverse / http://localhost:8080/
                    </VirtualHost>
```

d. Save the httpd-vhost.conf file and re-start your Apache service (the easiest way is to use the WAMP-manager icon and go to the Apache 'restart service' option).

4. Configuring PHP

a. It is – most unfortunately – not possible to refer to 2 different PHP-settings by including the directive 'PHPIniDir' twice (or more) in the virtual hosts settings. Apache will only observe the first one and report the second one as an error. So one can either leave that directive into the basic configuration file httdp.conf or put it into one (and only one) of the virtual hosts sections of the httpd-vhosts.conf file :

    PHPIniDir "c:/wamp/bin/php/php5.3.4"

One could put such statement e.g. before closing the virtual-host section (</VirtualHost>).

b. Add the php-extensions which ABCD needs but are possibly not yet active in WAMP, by removing the leading ';' or adding if not yet present in the section of the file 'php.ini' (in WAMP with PHP5.3.4 you will find this in C:\wamp\bin\php\php5.3.4) labeled as 'Dynamic Extensions' :

```
;;;;;;;;;;;;;;;;;;;;;
; Dynamic Extensions ;
;;;;;;;;;;;;;;;;;;;;;
extension=php_gd2.dll
extension=php_pdo.dll
extension=php_pdo_mysql.dll
extension=php_xsl.dll
extension=php_yaz.dll
```

c. Other php.ini settings could be slightly different in between WAMP and ABCD, but after some testing we didn't find them to be really important for either ABCD or WAMP, but rather 'fine-tuning' settings.

d. Copy the here added extension DLL's from your ABCD-php extension directory (folder) to the one of WAMP, probably being resp. \ABCD\php\ext and \WAMP\bin\php\php5.3.4\ext.

Beware : don't copy existing ABCD-extensions over existing WAMP-extensions, only add non-existing ones !

Warning : if the PHP version is indeed different, you will need to download the correct versions for the WAMP-PHP configuration. If e.g. your ABCD PHP is using version 5.2 but WAMP is using 5.3, you will have to load the correct versions for version 5.3, as that is the one we will be using.

Since WAMP installs its own MySQL server (in the folder \WAMP\bin\mysql) with its data-folder inthere as a subfolder, you might – but only if you use MySQL for the ABCD EmpWeb Advanced Loans module – have to reconfigure your MySQL configuration, i.e. the following directives might need to be edited in order to refer to the MySQL-folder used when installing MySQL for EmpWeb :

```
basedir=c:/wamp/bin/mysql/mysql5.1.53
log-error=c:/wamp/logs/mysql.log
datadir=c:/wamp/bin/mysql/mysql5.1.53/data
```
This file 'my.ini' also allows to set the port (default =3309) and password/login to access your MySQL.

5. Restart all services to test the new set-up. If you have done all previous steps correctly, it should be possible to open both default port web-applications, e.g.
   http://localhost/phpMyAdmin

and ABCD-port9090 applications :

http://localhost:9090/