1. Installation Guide

1.1. Software Requirements

Minimum Software requirements for the project installation are mentioned as below.

- Operating System - Windows / Vista / Seven
- Web Server - Apache 2.2.17
- Database System - MySql 5.5.8
- Server side scripting - PHP 5.3.5
- Web browser - Up to date versions of (Internet Explorer, Mozilla Firefox, Google Chrome)
- Web technologies -
    - HTML
    - CSS
    - JQuery

- In this guide XAMPP [X(any of four different operating systems), Apache, MySql, PHP and Perl] mini server will be used to demonstrate the steps.

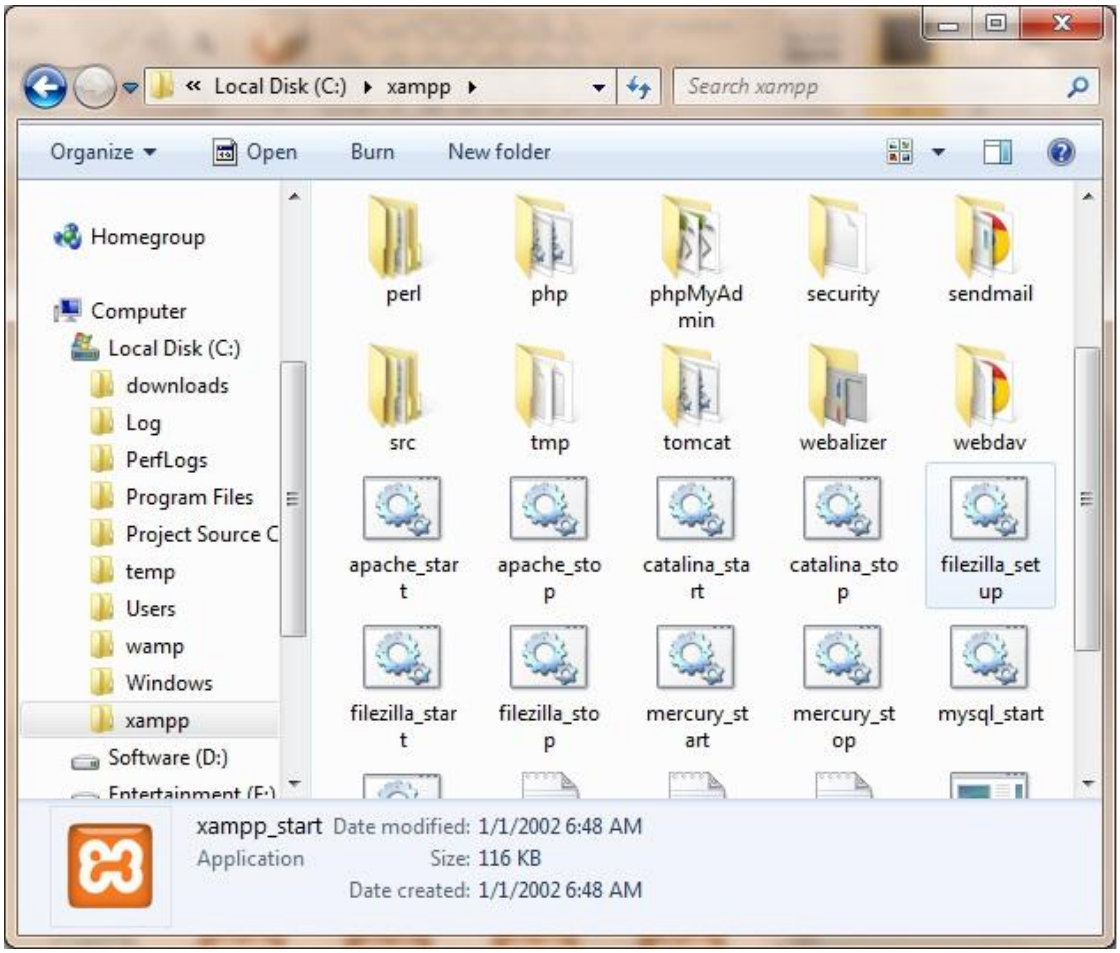
1.2. Hardware Requirements

Minimum hardware requirements for the project installation are mentioned as bellow.

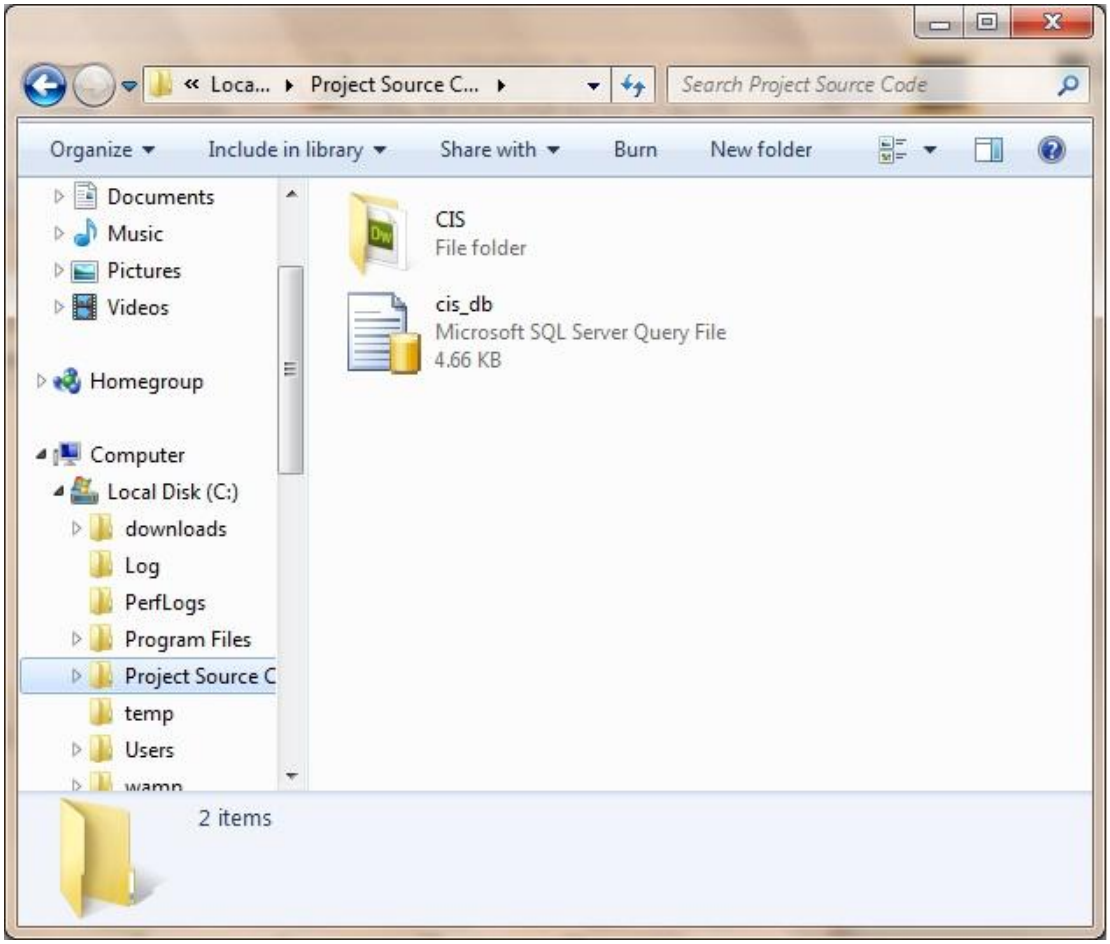
- Processor - Pentium IV
- Clock Speed - 1 GHz
- RAM - 512 MB
- Hard Disk - 10 GB

1.3. Installation Steps

1.3.1. Install the **XAMPP server setup**. Then it will install Apache, PHP and MySql all together in C:\xampp directory as the default installation path.

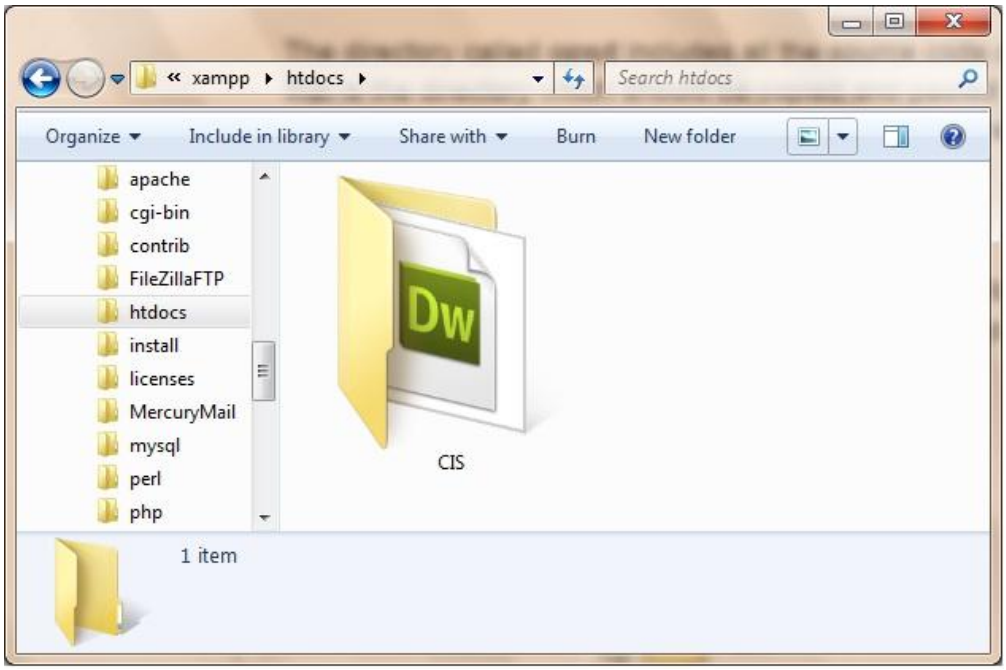


1.3.2. Then open the source code folder, which is provided in attached CD and it included the source code and the database creation script as below.

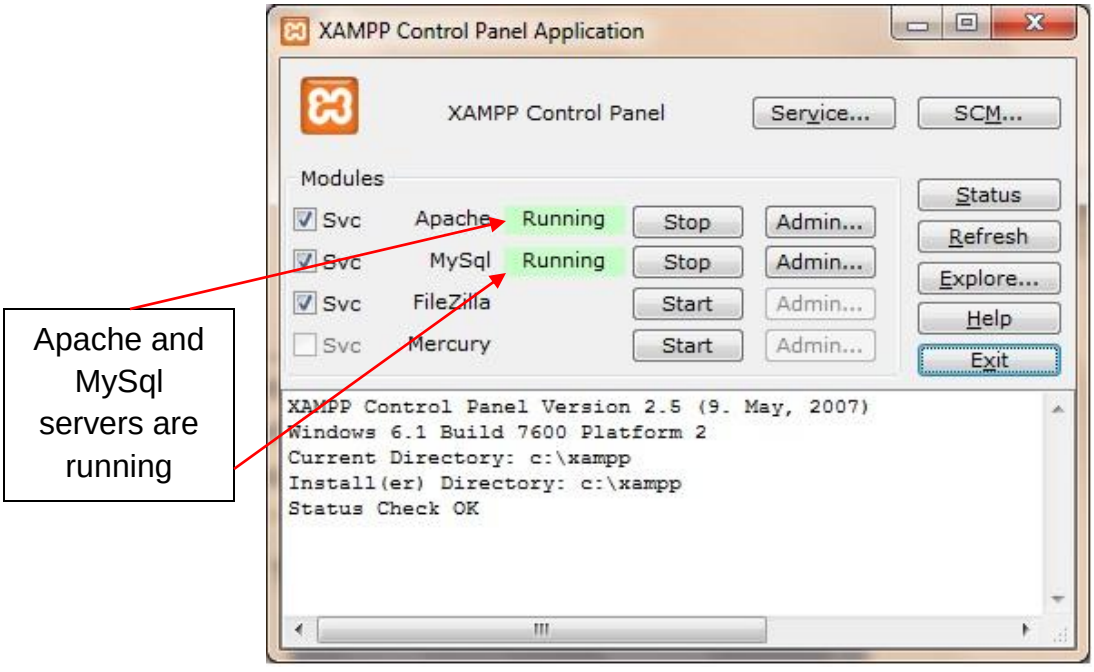


The directory called **CIS** includes all the source code and that is directory which should be copied and paste in to the web root in XAMPP server which is defined next step. So in this step copy the folder called CIS to the Clipboard.

1.3.3. Then go to the '**htdocs**' root directory in XAMPP installation folder (**C:\xampp\htdocs**) and paste **CIS** folder which was copied at previous step in to the **htdocs** directory as below.

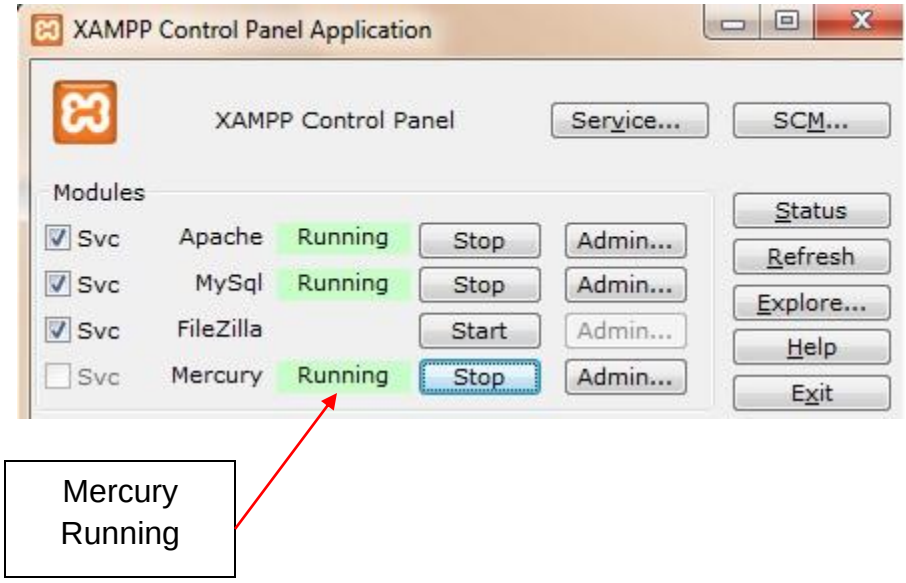


1.3.4. After pasting the **CIS** folder in web root then it is needed to run the **XAMPP** server. To do that, double click on the **xampp-control.exe** file in the xampp installation directory (**C:\xampp**).to run the server and make sure the start those Apache and Mysql server is running as below,



1.4. Email server Configuration

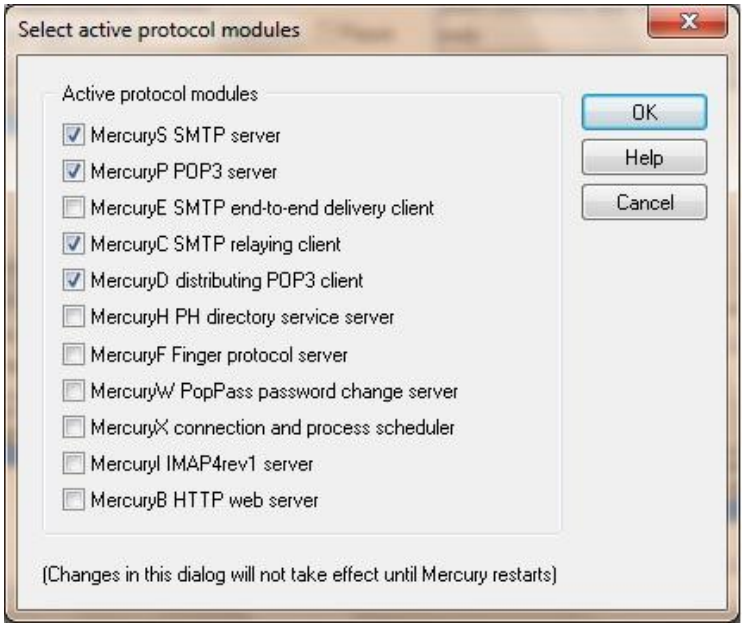
1.4.1. Start **Mercury** (using the **XAMPP Controlpanel**) and then open the admin panel



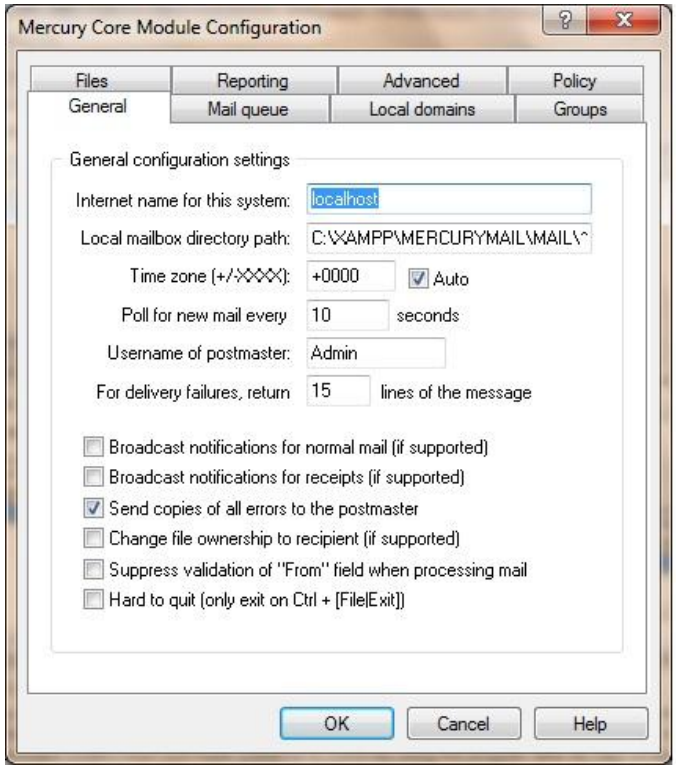
1.4.2. First of all will disable the HTTP server of Mercury so that it doesn't conflict with the apache:

- "Configuration" -> "Protocol modules"
- Disable the check "MercuryB HTTP web server"
- Also disabled "Mercury IMAP4rev1 server" because I won't need that one
- Leave the window opened, we'll need it immediately

1.4.3. To be able to send external mail you have to disable "MercuryE SMTP end-to-end delivery client" in the same dialog and enable "MercuryC SMTP relaying client". Click "OK" and restart Mercury! Like below,

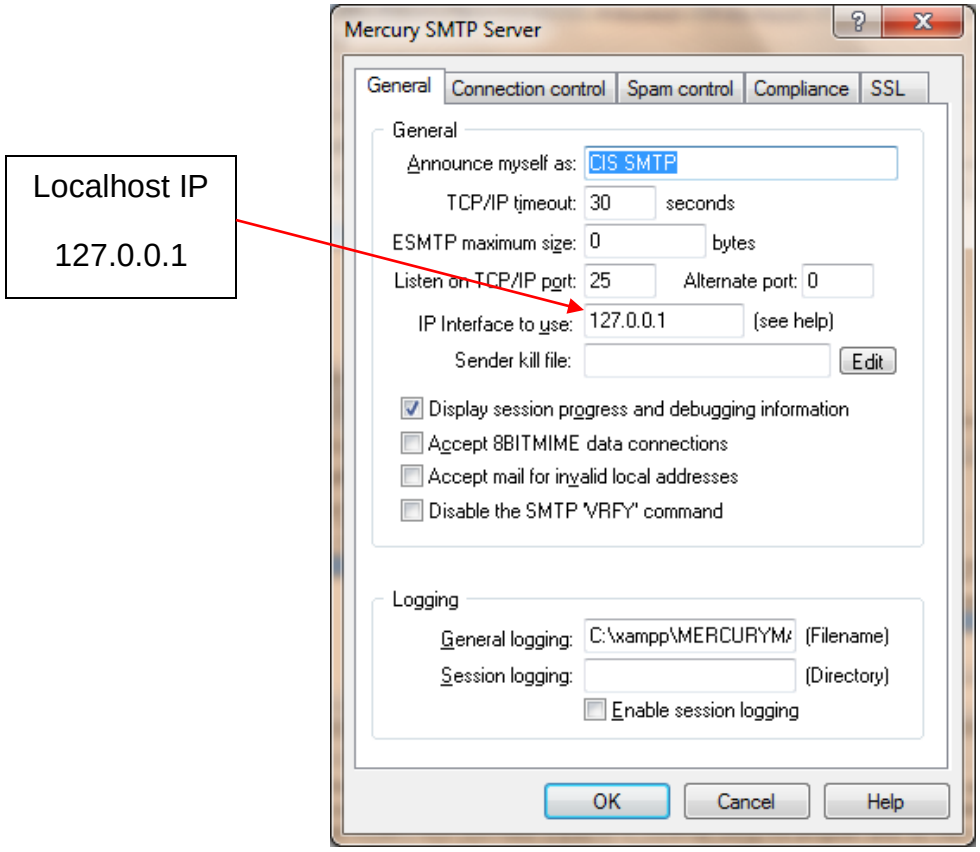


1.4.4. Now let's configure Mercury in general:

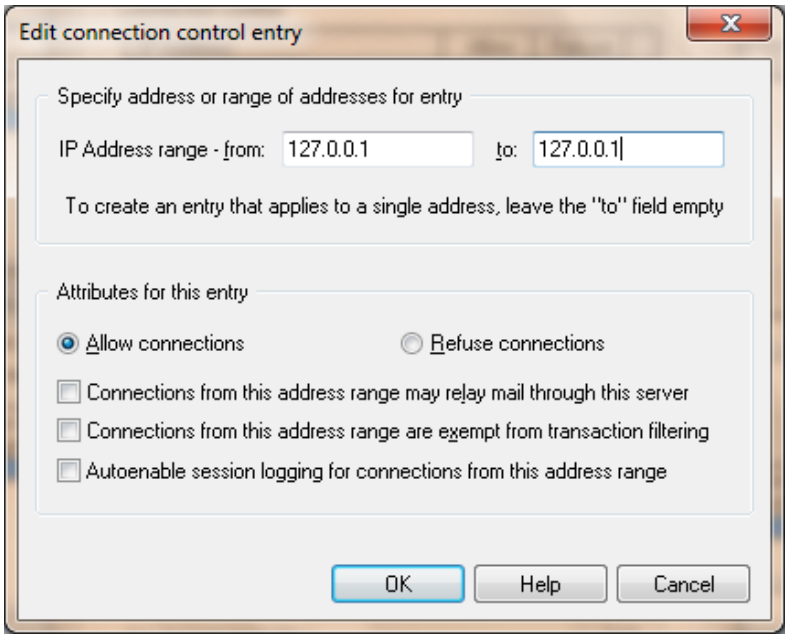


- "Configuration" -> "**Mercury core module**", tab "General"
- CIS system want to send from **localhost,** therefore, check if "**localhost**" is the value of "internet name for this system" and adjust that if not
- All other settings stay the same as they are already configured, but you'll have a look to the checkboxes beneath:
- Check under the tab "**Local domains**" if the entry "**localhost** (local host or server) localhost (internet name)" is there, if not, add it
- Click "OK" and leave the dialog.

1.4.5. Next will focus on the MercuryS SMTP Server for outgoing emails:



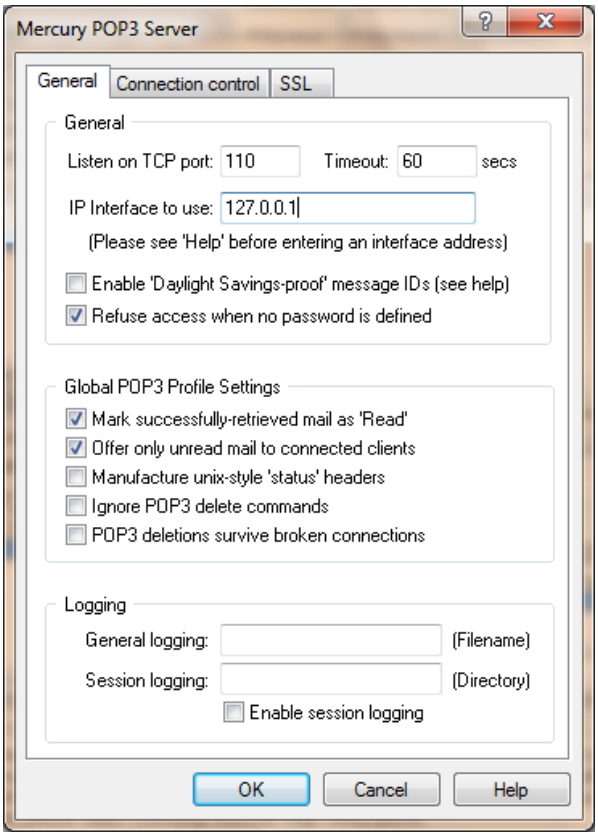
- "Configuration" -> "MercuryS SMTP Server"
- Choose the tab "General" and add a wonderful name for your SMTP server under "Announce myself as", fill in name of I've chosen "CIS SMTP".
- Under "Listen on TCP/IP port" fill in "25", that's the SMTP port
- Add "127.0.0.1" to "IP interface to use", that's the local IP of your pc.
- Now should be limit the access to the server so that only the local machine can access it:



- Under "Connection Control" click on "Add restriction" and add the IP range from "127.0.0.1" till "127.0.0.1" (it's that simple, isn't it?)...
- and select "Allow connections"...
- and leave all checkboxes deselected

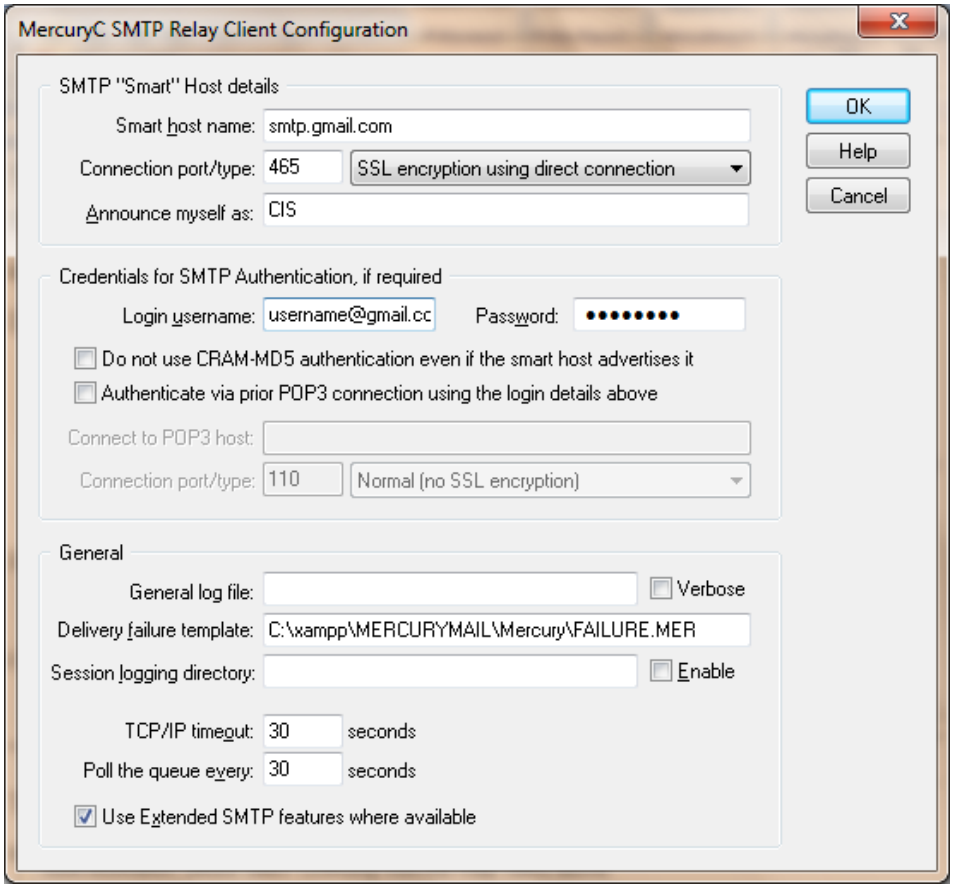
1.4.6. with a click on "OK" we quit the dialog and we're looking forward to the next one

1.4.7. Now let's configure the MercuryP POP3 Server:



- "Configuration"-> "MercuryP POP3 Server", select the tab "General"
- "Listen on TCP port" -> "110" and "IP interface to use" -> "127.0.0.1"
- choose the tab "Connection control" .
    - Under "Connection Control" click on "Add restriction" and add the IP range from "127.0.0.1" till "127.0.0.1" (it's that simple, isn't it?)...
    - and select "Allow connections"...
    - and leave all checkboxes deselected
- That's it already, leave the dialog by clicking "OK"

1.4.8. Now should have the important one "MercuryC SMTP Client"



- "Configuration" -> "MercuryC SMTP Client"
- To send mail to external addresses we need to have an external SMTP server. I've choosen here for google mail SMTP server.
- Enter the address of your SMTP under "**smtp.gmail.com**", for example **yourname@gmail.com**
- Depending on the way ,access the server fill the values under "465":
    - for a "normal" SMTP that would probably be port 25 and "Normal (no SSL encryption)"
    - I access my SMTP via SSL, that would be port 465 and "SSL encryption using direct connection"
- Finally fill in the "**gmail username**" and the "**Password**" .

1.4.9. Let's check the Mercury users that are normally pre-configured:

- "Configuration"-> "Manage local users"
- There should be at least the users "Admin" and "postmaster", both with administrative rights. If not you have to add them.

1.4.10. Now, finished with Mercury, but we still need to configure PHP for sending mail with our scripts:

- search and open the appropriate php.ini, using XAMPP you find it under "**xampp/php/php.ini**"
- Search for "[mail function]"...
- and add/adjust the following:
    - "SMTP = localhost"
    - "smtp_port = 25"
    - "sendmail_from = postmaster@localhost"
- save the php.ini and restart the Apache
- Now everything should work!

1.5. Database creation

1.5.1. Includes the database creation part. In the Web Project folder there is file called **CIS_db.sql** which is the SQL script used for database creation.

1.5.2. Finally the database open the db_constants.php file in includes folder (default full file path is C:\xampp\htdocs\CIS\includes). There is a code snippet with 4 lines as below.

```
1.  define("DB_SERVER", "localhost");
2.  define("DB_NAME", " cis_db ");
3.  define("DB_USER", "root");
4.  define("DB_PASS", "");
```

- Change the **localhost** to a particular IP address on line 1 if any other database server is used rather than a localserver.
- Change the **cis_db** on line 2 to a particular name if the name of the database which is created on above step is changed.
- Change the **root** on line 3 if different username is used for the database server.
- Change the **“”** on line 4 if different password is used for the database server.
- Do changes as necessary and save the db_constants.php file.

1.6. Admin Configuration

- Admin Username : admin
- Admin Password : admin123

1.7. Application path

The application path should be like this.

C:\xampp\htdocs\CIS\public