

SIME Installation and Configuration Manual

Version 1.0

August 2015

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Introduction

This Installation and Configuration Manual guide you to get the SIME web-based application up and running on a web server. It uses Windows 7 to demonstrate the installation on the windows platform and Ubuntu to demonstrate the installation on the Linux platform.

Target audience

This document is meant for IT professionals as well as computer literate individuals who have experience with installing an operating system and are comfortable to use the command line interface (CLI) on UNIX systems or text files on Windows systems.

Note: If you run into issues, first seek the advice from trained IT personnel. If then you require further assistance then email ihr@paho.org.

Scope of this document

- Configuration of:
 - PHP 5.3 and dependencies for use with PostgreSQL Database:
 - SIME Database
 - Web Application
 - Configuration file (config.php)
 - Configuring the default maps
 - SIME's Admin Menu
 - Modifying the text using Poedit text editor

What is NOT covered in this manual

This manual will not cover the following areas, but it will provide links to documentation that will assist in these areas.

- Installation and Configuration of:
 - Operating Systems (Windows and Linux)
 - Apache Web Server
 - PostgreSQL Database Server

Software Stack

Sime is a web application that was developed using the PHP (version 5.3) scripting language. It requires a web server to host the application. There are different software stacks that can be used to run SIME, this manual will focus specifically on the LAPP (Linux, Apache, PostgreSQL and PHP) and WAPP (Windows, Apache, PostgreSQL and PHP) software stacks.

Linux Installation

Ubuntu will be used to demonstrate installation of SIME on a Linux operating system.

Note: Run all Ubuntu commands from the terminal to install the required software stack. If you get stuck, first seek the advice from trained IT personnel. If you are still stuck then email sime.manager@gmail.com.

Hardware Requisites

Component	Requirement
Processor	300 MHz x86 processor
Memory	<ul style="list-style-type: none">• Minimum: 192 MB RAM• Recommended: 1 GB RAM or greater
Available Disk Space	<ul style="list-style-type: none">• Minimum: 10 GB• Recommended: 40 GB or greater

Ubuntu Documentation. (n.d.). Retrieved May 5, 2015, from <https://help.ubuntu.com/community/Installation/SystemRequirements>

Operating System

Name: Ubuntu

Version: Latest Desktop or Server * LTS (Long Term Support)

Official Website: <http://www.ubuntu.com>

Download Link: <http://www.ubuntu.com/download/>

Tutorials:

- <https://www.youtube.com/watch?v=P5IMuMhmd4Q>
- <https://help.ubuntu.com/lts/serverguide/installation.html>

Database Server

Name: PostgreSQL

Version: 9.2 (or greater)

Official Website: <http://www.postgresql.org/>

Install commands:

```
sudo apt-get update
```

```
sudo apt-get install postgresql postgresql-contrib -y postgis postgresql-9.3-postgis-2.1
```

```
sudo nano /etc/postgresql/[version number]/main/pg_hba.conf
```

Tutorials:

- Install postgresql server on Ubuntu:
<https://help.ubuntu.com/stable/serverguide/postgresql.html>
- <https://www.youtube.com/watch?v=M4RDizdaO9U>
- <http://www.saintsjd.com/2014/08/13/howto-install-postgis-on-ubuntu-trusty.html>
- Configuring and securing database server:
<https://www.digitalocean.com/community/tutorials/how-to-secure-postgresql-on-an-ubuntu-vps>

Web Server

Name: Apache

Version: 2.2 (or Greater)

Official Website: <http://httpd.apache.org/>

CLI install commands: `sudo apt-get install apache2`

Tutorials:

- <http://httpd.apache.org/docs/2.4/>
- <https://www.digitalocean.com/community/tutorials/how-to-configure-the-apache-web-server-on-an-ubuntu-or-debian-vps>

Scripting Language

Name: PHP

Version: 5.3 (or Greater)

PHP Libraries for SIME:

- php5-pgsql
- php-pear
- php5-gd

CLI install commands:

```
sudo apt-get install php5 libapache2-mod-php5 php-pear php5-gd php5-pgsql php-gettext
```

For PHP to work with PostgreSQL you must **install php5-pgsql**

Keep in mind:

- Ensure that ' **extension=php_pgdll.dll** ' is uncommented in the /etc/php5/apache2/php.ini
- If it does not exist in the file then you will need to manually add it.

Official Website: <http://php.net/>

Tutorials:

- Ubuntu Server Guide PHP: <https://help.ubuntu.com/lts/serverguide/php5.html>
- Youtube Install PHP: <https://www.youtube.com/watch?v=txQYbEBLHo0>
- Gettext: <http://bitxpand.com/?p=85>

Setup SIME Database

1. Create 'sime' database, with a user role for that database

```
sudo -u postgres createuser -D -A -P [sime username]
```

```
sudo -u postgres createdb -O [sime username]sime
```

2. Reload postgresql

```
sudo /etc/init.d/postgresql reload
```

3. Create postgis extension for the sim database

```
sudo -u postgres psql -c "CREATE EXTENSION postgis; CREATE EXTENSION  
postgis_topology;" [DATABASE_NAME_HERE]
```

4. Import database using 'sime_utf8_clean.sql'

```
psql -U postgres sim < [Location of database]/sime_utf8_clean.sql
```

Helper Link: <https://help.ubuntu.com/community/PostgreSQL>

Setup SIME Web Application

1. Copy the SIME directory to the root directory of the apache2 web server. Depending on your version of Apache2, this will either be:
 - /var/www
 - /var/www/html
2. Ensure that apache has read/write/execute permissions on the directory and its contents
3. **Configure** the **config.php** file as directed in the [Configuring Sime](#) section below.

Windows Installation

This installation was performed using Windows Server 2008

Hardware Requisites

Specifications based on Windows Server 2008

Component	Requirement
Processor	<ul style="list-style-type: none">• Minimum: 1 GHz (x86 processor) or 1.4 GHz (x64 processor)• Recommended: 2 GHz or faster <p>Note: An Intel Itanium 2 processor is required for Windows Server 2008 for Itanium-Based Systems.</p>
Memory	<ul style="list-style-type: none">• Minimum: 512 MB RAM• Recommended: 2 GB RAM or greater
Available Disk Space	<ul style="list-style-type: none">• Minimum: 10 GB• Recommended: 40 GB or greater

Windows Server 2008 System Requirements. (n.d.). Retrieved May 5, 2015, from <https://technet.microsoft.com/en-us/windowsserver/bb414778.aspx>

Operating System

Name: Windows

Version: 7/Server 2008 (or Later)

Database Server

Name: PostgreSQL

Version: 9.2 (or greater)

Official Website: <http://www.postgresql.org/>

Download Link: <http://www.enterprisedb.com/products-services-training/pgdownload#windows>

PG Admin Download Link: <http://www.pgadmin.org/download/windows.php>

Tutorials:

- Quick start: <http://www.enterprisedb.com/resources-community/tutorials-quickstarts/windows/getting-started-postgres-plus-tutorial-windows>
- Installing and Configuring PostgreSQL: <https://www.youtube.com/watch?v=1GIQpfIJZTU>
- Backup and Restore: http://www.thegeekstuff.com/2009/01/how-to-backup-and-restore-postgres-database-using-pg_dump-and-psql/

Official Documentation:

- PG Admin: <http://www.pgadmin.org/docs/>
- PostgreSQL: <http://www.postgresql.org/docs/>

Web Server

Name: Apache

Version: 2.2 (or Greater)

Official Website: <http://httpd.apache.org/>

Download Link: <https://archive.apache.org/dist/httpd/binaries/win32/httpd-2.2.25-win32-x86-openssl-0.9.8y.msi>

Tutorials:

- Installation: <https://www.youtube.com/watch?v=SwbJppuPADE>
- Installation: <http://httpd.apache.org/docs/2.2/platform/windows.html>

Scripting Language

Name: PHP

Version: 5.3 (or Greater)

Required PHP

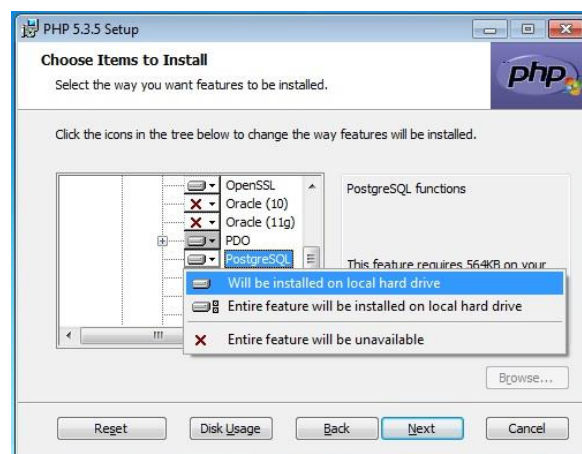
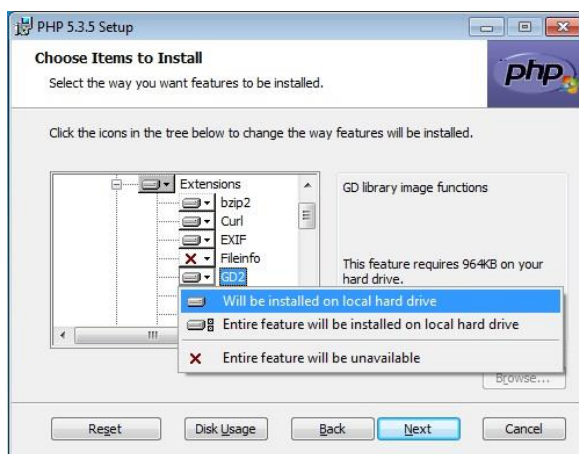
- php-pear
- php5-gd
- gettext

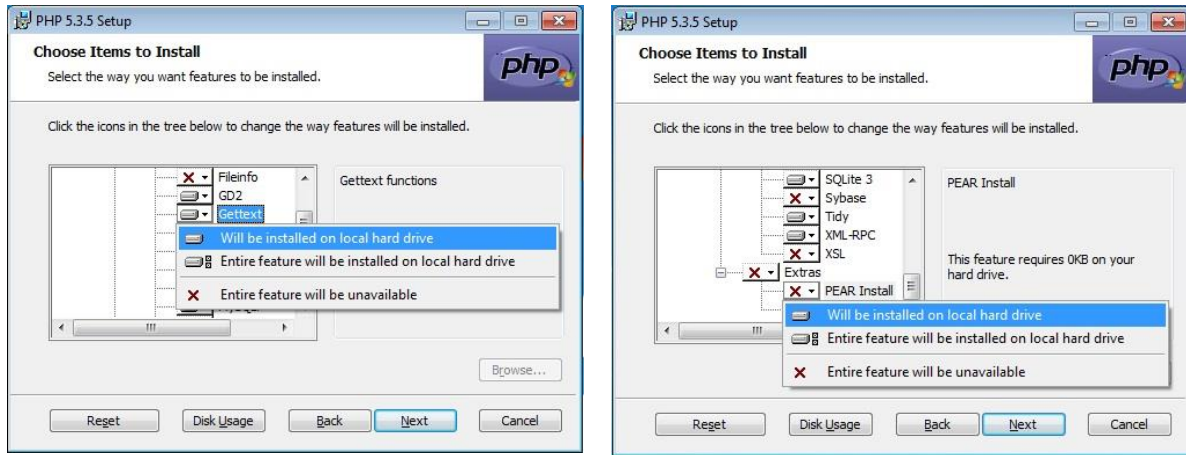
Download Link: <http://windows.php.net/download#php-5.6>

Download Link 2: <http://windows.php.net/downloads/releases/archives/> - Download the latest installer. E.g. 'php-5.6.7-Win32-VC11-x86.zip'

Other Instructions:

- When installing, ensure that the dependencies **pear**, **gd** and **gettext** are checked in the installer





- ensure that 'extension=php_pgsqll.dll' is uncommented from the 'php.ini' file
- ensure that apache is configured for PHP

Official Website: <http://php.net/>

Tutorials:

- Configure PHP and Apache: <http://www.thesitewizard.com/php/install-php-5-apache-windows.shtml>
- Go to Steps 3 and 4 of this article: https://docs.moodle.org/28/en/Manual_install_on_Windows_7_with_Apache_and_MySQL

Setup SIME database

- Open Command Prompt with administrator privilege
- Change to the Postgresql 'bin' directory
- Create user


```
createuser -U postgres -D -A -P [sime username]
```
- Create Database


```
createdb -U postgres -O [sime username]sime
```
- Restore database


```
psql -U postgres sime < [Location of database]/sime_utf8_clean.sql
```

Setup SIME Web Application

- Copy the "SIME" application folder to the 'htdocs' directory for the apache web server.
- **Configure** the **config.php** file as directed in the [Configuring Sime](#) section below.

SIME Configuration

The Config.php File

Most of the configuration of SIME is performed in the 'config.php' file which located in the root directory of the SIME web application folder. The settings below are available for configuration.

Database

Configuration settings for the Database Server

- **\$DbHost** – The IP address for the database server. (E.g. localhost or 10.10.10.1)
- **\$DbPort** – The port number for the database server
- **\$DbUser** – The username for an account on the database server with privileges to the SIME database
- **\$DbSchema** – The database schema used for the SIME database (Default = public)
- **\$DbType** – The type of database server used (e.g. postgres, mysql, mysqli, oracle)
- **\$DbIdioma** – The default language for SIME (e.g: 'Spanish (Traditional Sort)' or Portuguese (Brazil) or 'Spanish (Bolivia)' or 'English' or 'Afrikaans')
- **\$DbSendEmail** – Enable send e-mail (options: 'false' or 'true')
- **\$DbEncoding** – Database encoding (example: 'utf-8' or 'iso-8859-1')

Application

- **\$IntEncoding** – Interface encoding (example: 'utf-8' or 'iso-8859-1')
- **\$vTimezone** – Set the time zone for the SIME (example: 'America/Los_Angeles')
- **\$vLocale** – Set locale for the server on which SIME is installed (e.g. en_US)
 - *for linux, check the locale folder of your server for the correct value e.g /etc/default/locale or ruining the locale command*
- **\$vLinkSist** – Web link to which must be adapted by country based on their implementation of SIME
- **\$vDateFormat** – Set the date format (example: '%Y-%m-%d' or '%Y/%m/%d')
- **\$DbCountry** - Set the default country that SIME is being implemented (Example: 'Brazil'). This must be the same value as the "POMPAIS" field in the "Ibge_PO_Mun_2000_2005" database table. This is the table that stores records for "Register City/Village" in the ADMIN menu in SIME.
- **\$sis_Versao** – System version number (example '2.0.05'). Do not change unless you have modified the source code.
- **\$vPathlib** – **Do not change**

Email Server

- **\$vEmailNot** - predefined email address for notifications. (example notification@sime.gov)
- **\$vEmailAdm** - predefined email address for administrative area (example admin@sime.gov)
- **\$vEmailSMTPHost** - smtp server setting (example smtp.gmail.com)
- **\$vEmailSMTPPort** - smtp server port number (example: gmail = 587)
- **\$vEmailSMTUser** - email account username
- **\$vEmailSMTPPass** – email account password
- **\$vEmailSMTPAuth** – email authentication type (example Plain / CRAM_MD5 / Login - gmail = Login)
- **\$vEmailSMTSProt** – email encryption type (example: TLS / SSL or Blank)
- **\$vEnviaEmailNot** – Enable send email notification to user profiles (Options: 'S' or 'N')

Homepage Map Customization

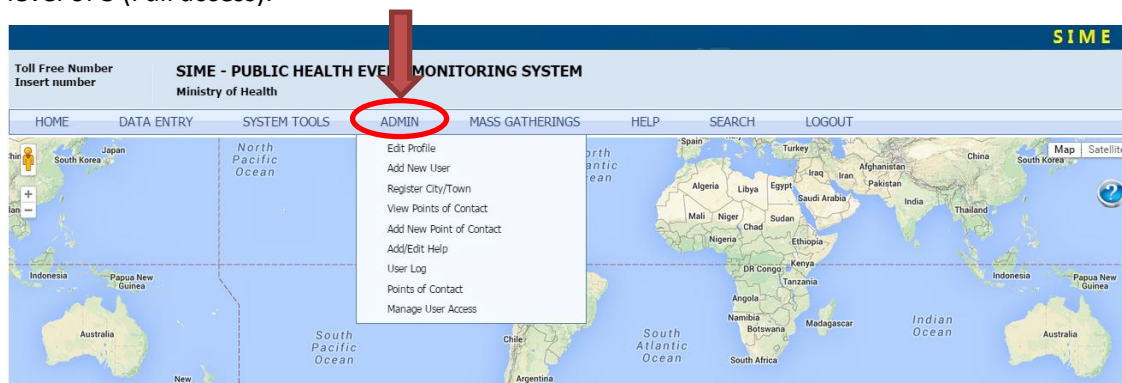
- **\$ChaveGoogle** – Google maps key
- **\$vlat_ref** – Latitude settings for the homepage map
- **\$vlng_ref** – Longitude settings for the homepage map
- **\$vzoom_ref** – Zoom settings for the homepage map. The higher the value the greater the zoom (example 1,2,3,4...)

Other Map Customization

- **\$DefaultAddress** - Used to set default city for maps other than the homepage map (example Roseau, Dominica)

Configuration of SIME Admin Menu


This section will cover the administration of the SIME application. All the administration options for SIME can be found in the 'ADMIN' tab. In order to access the 'ADMIN' tab, user must have an access level of 3 (Full access).



Register a City/Town/Village

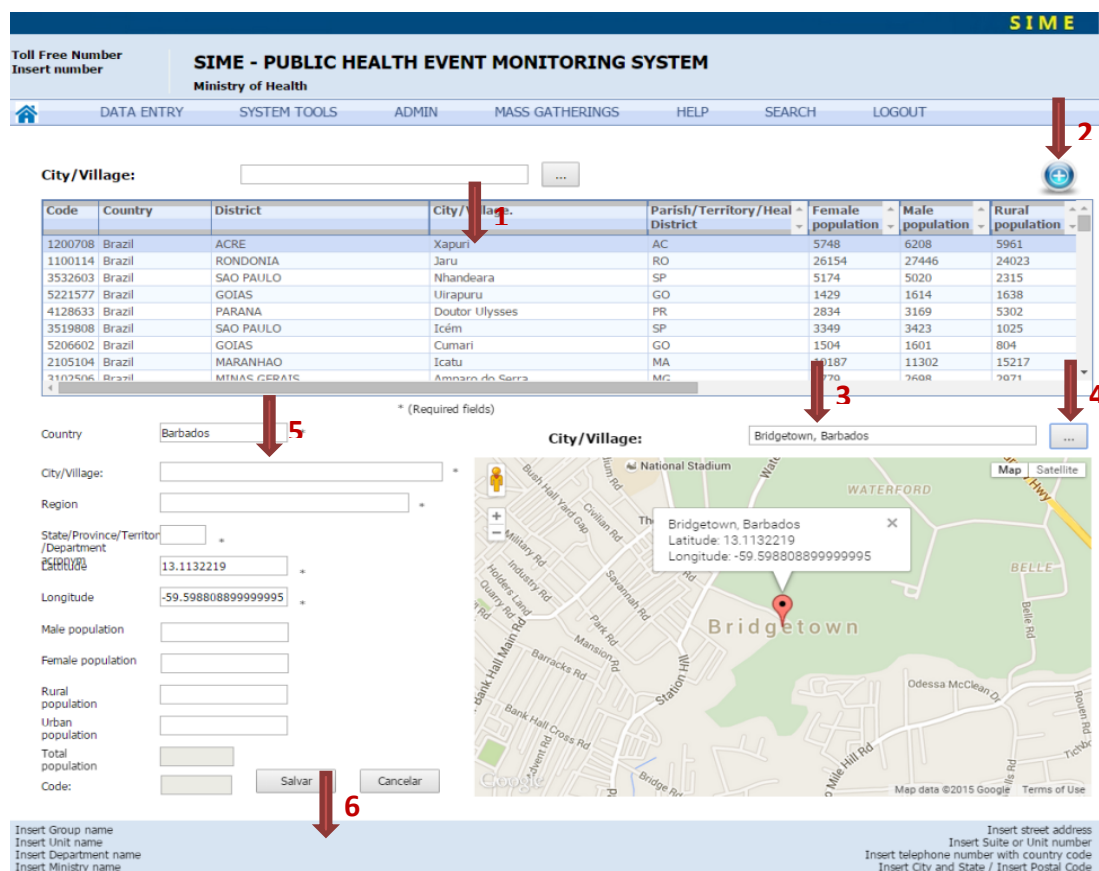
This is the first option that you need to configure for the smallest administrative level in a country (e.g. city, town or village). SIME requires you to register the locations (City/Village) that each user is based prior to registering the users.

To register a City/Town/Village:

1. First, you must select any field from the table in order for the add button to become visible
2. Click on the addition button 
3. Type the name of the City/Village and the Country you are registering into the 'City/Village' text box. [Country] , [City/Village] e.g. Bridgetown, Barbados
4. Click the "... " button to locate the city
 - a. The Longitude and Latitude will automatically populate, you can also change the values manually if required
5. Fill out the other administrative details (i.e. population) for that that City/Village
6. Press the save button at the bottom

Please see image below

Figure 1: Registering a new City/Village



SIME - PUBLIC HEALTH EVENT MONITORING SYSTEM
Ministry of Health

Toll Free Number
Insert number

DATA ENTRY SYSTEM TOOLS ADMIN MASS GATHERINGS HELP SEARCH LOGOUT

City/Village: ...

Code	Country	District	City/Village	Parish/Territory/Health District	Female population	Male population	Rural population
1200708	Brazil	ACRE	Xapuri	AC	5748	6208	5961
1100114	Brazil	RONDONIA	Jaru	RO	26154	27446	24023
3532603	Brazil	SAO PAULO	Nhandeara	SP	5174	5020	2315
5221577	Brazil	GOIAS	Uirapuru	GO	1429	1614	1638
4128633	Brazil	PARANA	Doutor Ulysses	PR	2834	3169	5302
3519808	Brazil	SAO PAULO	Itém	SP	3349	3423	1025
5206602	Brazil	GOIAS	Cumari	GO	1504	1601	804
2105104	Brazil	MARANHAO	Icatu	MA	10187	11302	15217
3107506	Brazil	MTAS CERRAS	Amazônia de Serra	MT	770	7608	7071

Country: Barbados

City/Village: Bridgetown, Barbados ...

Region:

State/Province/Territory/Department:

Latitude: 13.1132219

Longitude: -59.598808899999995

Male population:

Female population:

Rural population:

Urban population:

Total population:

Code:

Salvar Cancelar

Map Satellite

Bridgetown, Barbados
Latitude: 13.1132219
Longitude: -59.598808899999995

Map data ©2015 Google Terms of Use

Insert Group name
Insert Unit name
Insert Department name
Insert Ministry name

Insert street address
Insert Suite or Unit number
Insert telephone number with country code
Insert City and State / Insert Postal Code

Add New Users

Ensure that the city/village for the user is already registered into the system.

Add/Edit Help

Use the editor on this page to modify the text shown on the help menu for users. The user manual should be added here.

User Log

Shows how many times a user has accessed the system.

Manage User Access

- Activate user account using the “Manage User Access” menu
 - Active:
 - ‘S’ = Yes
 - ‘N’ = No
 - Access Level – See [Modify Navigation Bar](#) on configuring access
 - 0 = View Only
 - 3 = Full Access

Database Administration

Not all administration can be performed within the config.php or the runtime administration menu. Some tasks require modifying the database.

Modify Navigation Menu Access

To modify the navigation menu access level, you must change the **acesso** variable in the tb_web_links table, which manages which access level has the permission to view the menu bar item.

Modifying the system labels

In order to customize the labels within the program to better suit your country, you need to use an application called POEDIT. POEDIT modifies the translation file which is located within the ‘SIME’ web app folder (/sime/locale/English/LC_MESSAGES/messages.po).

Do not attempt to modify the messages.mo file as this is automatically generated using the messages.po file.

*When editing using POEDIT you must restart apache

POEDIT download link: <https://poedit.net/>

Appendix

FAQ

Q: **Why is my Linux server is in Portuguese?**

A: Ensure that the line of code **setlocale (LC_ALL, en_US.UTF-8);** is added to your config.php file