



SETTING UP CLEARHEALTH 2.2

INTRODUCTION

These instructions are for ClearHealth 2.2 on Ubuntu 8.10 (Intrepid Ibex), upon which Linux For Clinics Alpha3 will be based. These instructions may not work for your system.

Please, follow these instructions carefully. Deviate at your own peril.

ClearHealth must be installed by and used within a graphical (i.e. desktop) environment, but I'll still use the command line extensively since it can be faster. If you plan to install ClearHealth on a server (i.e. - no desktop), you should install it over a secure, remote connection on a computer that does have a desktop environment.

These instructions cover the simplest setup: one system with a graphical environment. If your setup is more complex, then I trust you have the skills to modify these instructions to fit your needs.

However, as an example of a more complex setup:

Situation: It's common for busy practices to have more than one clerk, so they need multiple workstations to access the same database simultaneously.

Problem: Multiple installations of ClearHealth is not a solution because you will end up with two separate databases not sharing information.

Solution: Install ClearHealth on a server and have the workstations access that over a shared network.

Setup: Install ClearHealth (via secure remote connection) on the server, but **NOT** on the workstations. Connect the server and workstations to the same network using a router. ClearHealth is a web-based program, so you can access it using an internet browser as long as you are connected to the same network as the server.

Change to the Instructions: Substitute every instance of “localhost” in the instructions with your [server's IP address](#) and alter the file/folder paths if necessary.

If you wish to go this route, do research on remote connections and buy a crossover cable. If you wish to go further and set up a chroot jail for added security you are on your own.

To be honest, servers are used for single-user networks, too. I also suppose it is possible to install ClearHealth on one of the workstation and just have the other user access it through the network which would save money spent on a server. However, running a desktop eats up a lot of system resources, which means lost ability to process database traffic, resulting in a slower turnaround. Using a server dedicated to database management ensures more resources are spent processing traffic, resulting in a faster turnaround.

NOTE: Ignore quotation marks. They just point out important items.

INSTALLATION

STEP 1: Install the necessary packages:

IMPORTANT! - Record your soon-to-be created mysql password. You'll need it.

```
sudo apt-get install php5 mysql-client-5.0 apache2
```

STEP 2: Install phpmyadmin to make database management easy:

```
sudo apt-get install phpmyadmin
```

STEP 3: Create a ClearHealth database with `phpmyadmin`:

- Open your internet browser to: <http://localhost/phpmyadmin>
- Log into phpmyadmin using your mysql username/password
- In the space provided, create a new database called "`clearhealth`" (or whatever you want it to be)
- Log out

STEP 4: Download ClearHealth from SourceForge and save it to your desktop:

https://sourceforge.net/project/showfiles.php?group_id=135174&package_id=148420&release_id=596654

STEP 5: Start a terminal and paste the commands below that are marked in blue:

- Extract `clearhealth-2.2.tgz` to the `/var/www` directory
 - `sudo tar -zxf ~/Desktop/clearhealth-2.2.tgz -C /var/www`
- Make some empty `config.php` files:
 - `sudo touch /var/www/clearhealth/installer/config.php`
 - `sudo touch /var/www/clearhealth/local/config.php`
- Change file/folder permissions and ownership:
 - `sudo chmod -R 740 /var/www/clearhealth`
 - `sudo chgrp -R www-data /var/www/clearhealth`
 - `sudo chown -R www-data /var/www/clearhealth`
- Change one file's permissions temporarily:
 - `sudo chmod 777 /var/www/clearhealth/local/config.php`

STEP 6: Open these 4 files as root:

```
sudo gedit /etc/php5/apache2/php.ini /etc/php5/cli/php.ini /usr/share/php5/php.ini-dist  
/usr/share/php5/php.ini-dist.cli
```

NOTE: If you use a different text editor than gedit, replace the highlighted portion above with the name of the one you use

For each file, search for these entries and edit them accordingly:

- "magic_quotes_gpc" - change the value to "Off"
- "magic_quotes_sybase" - change the value to "Off"
- "magic_quotes_runtime" - change the value to "Off"
- "memory_limit" - change the value to "128M" (64M is suggested but I still got an error when using it, so I changed it to 128M)

Save the changes and close your text editor.

STEP 7: REBOOT your computer, or restart the apache service (I prefer rebooting):

```
sudo /etc/init.d/apache2 stop  
sudo /etc/init.d/apache2 start
```

STEP 8: Access ClearHealth's Installer by putting the following URL in your internet browser:

IMPORTANT! - You will need your mysql username & password (created and used earlier), your database's name (clearhealth) and a good password for ClearHealth's admin account (up to you).

<http://localhost/clearhealth/installer/>

After the License Agreement, you will be able to install the optional "zipcodes", "hcpcs" and "icd9" databases. I suggest installing them all now so you won't have to manually install them or repeat the installation.

STEP 9: Finishing Up

- Re-secure permissions:
 - `sudo chmod -R 740 /var/www/clearhealth`
- Delete the "installer" directory:
 - `sudo rm -R /var/www/clearhealth/installer`
- Delete the subversion folder (normal users don't need it):
 - `sudo rm -R /var/www/clearhealth/.svn`

SETUP COMPLETE! You can now use ClearHealth 2.2!

GETTING STARTED

Enter this URL your internet browser:

<http://localhost/clearhealth/index.php>

Login with ClearHealth's admin account and add:

- The name of your practice
 - [Admin > Setup > Facilities](#)
- Additional users
 - [Admin > Setup > Users](#)
- Patient Data
 - [Patient > Actions > Add Patient](#)
- Patient Appointments
 - [Calendar > Actions > Add Appointment](#)
- Names of Payers (Billing)
 - [Bill > Admin > Payers](#)

Essentially, just go through all of the "Admin" options under each tab until you run out of ideas of things to enter. The Billing section is essential to get making appointments to work so pay special attention to it.

AVOID DISASTER

- Use hard-to-guess passwords for mysql and ClearHealth!
- **Do not use the admin account for daily business.** Create and use a normal user account for that.
- If you install ClearHealth again and select the database a past installation used you **WILL ERASE THE OLD DATABASE** and with it all of your valuable information. To prevent this, use [phpmyadmin](#) to [create a new database](#) for the new installation to use, make a [backup](#) of the old database, and then [import](#) the backup to the new database after re-installation.
- **Make daily backups** of your database to prevent catastrophic loss of data!

REVIEW

ClearHealth has functions that will not work if the admin leaves out important information. For example: if the patient has no billing information in the database, then they cannot make an appointment. Since this is understandable from a business standpoint (if they can't pay, why are you seeing them?), it wouldn't be classified as a bug. Unless you wish to count that example, I found no major flaws in the program. I included a few steps on the “[Getting Started](#)” page that should be of some use but that is a shadow of the information you are capable of adding or features you can use.

The only major nags were that I occasionally had to click on tabs or menu items more than once to get the browser to change pages. I'm not concerned by this because internet browsers behave like this normally. Another nag was that the database can take 15 minutes to show updated billing information (it says so on the main [Calendar](#) page). This means once a user enters a patient's billing info, they may have to wait as long as 15 minutes before scheduling an appointment. From what I know about database-dependant programs, lags like this are common. Sadly, I do not have knowledge on how to optimize the database to improve the update times. I can only hope future versions of ClearHealth speed up the process.

Due to the amount of information needed for ClearHealth to function, it should not be implemented until all of the important functions (namely appointment scheduling) will work. This may sound tedious, but you will be comforted by the amount of money you will be saving with this free software.

The true number of bug are unknown to me because I didn't have the information or understand the terms in certain menus. Someone who runs a practice will have a good idea on what a “superbill” or “discount table” are, but since I didn't I couldn't test it properly. Also, it seems you can't fully appreciate ClearHealth's features until you build a large database of patients, payers, facilities, and so forth. Truly, we are talking about at least a hundred detailed entries and I simply don't have the time for that.

Using ClearHealth efficiently will take time and practice but that is to be expected. Just make certain all users know the more common functions when they being using ClearHealth and daily use will teach them the rest.

One of ClearHealth's benefits is its simplicity of form. All of its functions are organized in menus within an easily-navigated 4-tabbed form. Where suites of this nature are known to be fairly complex, ClearHealth manages to keep it simple.

All-in-all this is a great suite with a lot of promise.