

Fedora Linux Applications for a National Political Machine on a Laptop

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Introduction

Fedora Linux applications for a National Political Machine on a Laptop strive to bring into actualization, Everett Ehrlich's observations offered in a New York Times column prior to the 2004 elections. Mr. Ehrlich offered that the Dean for President organization had achieved a level of sophistication that matched the performance of the larger, more traditional political machine. They had come by this achievement through economies of scale by extending horizontally across a political base rather than vertically through traditional centralization.

This paper is not so much a treatise on this philosophy as it is a log journal of the technical matters to literally building such a political machine in a laptop.

IMPORTANT NOTICE

The following files need to be maintained if the IP of the server is changed:

Installing Servers

The first consideration is the basic operating system that will support the applications that go to form the political machine in a laptop. In this regard, two are obvious choices. The first is Linux given its noted economy. Its choice is also consistent with the technical philosophy of adhering to the Open Source and Open Software movement (the terms are used interchangeably in common discussion).

There is a basic suite of servers that can reside in either environment of operating systems. We will not dwell on their installation here so much as to acknowledge them and to offer that their discussion is attended in other papers within this series. We will, however, touch on them to introduce their context that will be presumed below in further discussion. Foremost is the Apache Web Server. Apache is a product that has been in use for a decade and is the leading Web Server, by server count, in the world. It is the product of the Open Source movement and that community has added considerable flexibility and features to it over the years. Nearly all progress on the Web has derived from Open Source cutting edge software that has migrated into the mainstream.

Other such servers that reside beneath Apache are MySQL, PHP, JSP (Jakarta Tomcat); or taken inclusively, XAMPP which is an Apache distribution that contains many of these subordinating servers. This list is not exhaustive, but adequate to the task of this discussion.

Introducing CivicSpace

CivicSpace is derived from DeanSpace. DeanSpace in turn derives from Drupal. Drupal is what is called a content management system (CMS). The long and short of it is that CivicSpace is a Web platform that combines many political and civic organization activities in one place for a bottom-up people-powered campaign base.

Installing CivicSpace

If at any time the installation fails, then from the browser's menu bar select the Tools, Options, Privacy and Clear all cookies (or specifically PHPSESSID). If on re-attempts to install, failure still occurs then completely erase the civicspace-0.8.2-rc5 folder (described below) and extract a new copy from the download zip file AND Clear all cookies (or specifically PHPSESSID). If on re-attempts to install, failure still occurs then completely erase the database tables and database AND then completely erase the civicspace-0.8.2-rc5 folder (described below) and extract a new copy from the download zip file AND Clear all cookies (or specifically PHPSESSID).

Read the section on Configuration below to anticipate the need to come up with a Name, Slogan, and a Mission statement for this installation.

Fuller details may be found in the CivicSpace Appendix below.

Obtain civicspace-0.8.2-rc5.tgz from:

<http://civicspacelabs.org/home/developers/download>

and store into the /download directory.

Extract the contents into:

`/opt/lampp/htdocs`

with:

`cd /download`

`tar -zxvpf civicspace-0.8.2-rc5.tgz -C /opt/lampp/htdocs`

At this point, using the download directory name of *civicspace-0.8.2-rc5* is not a particularly graceful or descriptive name for Web exposure. You might want to change it to something other, but keep in mind to use that substitution throughout the following instructions.

The following folders (/files...) may need to be added to the directory tree:

`/opt/lampp/htdocs/civicspace-0.8.2-rc5`

`/files`

`/civicrm`

`/templates`

`/upload`

The first requirement is for a database with username and password. This presumes MySQL has been configured with these already. **Note the discussion below** as to naming a database. The second requirement for PHP safe mode is already satisfied (confirm in php.ini anyway, at least you don't need to reboot). The third requirement for memory_limit, change the value upward to 24M:

`open /opt/lampp/etc/php.ini and edit`

`memory_limit = 24M`

reboot Xampp/Apache:

`/opt/lampp/lampp restart`

Open the phpMyAdmin page at:

<http://24.19.47.204/phpmyadmin/>

and add a new database:

`civicspace_db`

make no effort to do any more than this, the installation/configuration will build a schema and populate the database.

Point the browser at

<http://24.19.47.204/civicspace-0.8.2-rc5/install.php>

Observe the prompts offered and perform the actions required at this page.

Press the “Begin installation” button (may require new login if server restart).

This is pretty quick, and Server Check up page reveals all Successes.

Press the “Install” button.

This results in a page offering a single site OR multiple site installation, we will take the easier single site installation

select the single site set up button
and proceed to

Press the “Setup database” button.

In this case, the database name will be civicspace_db as prompted by online support pages. **It is necessary to first create the database using phpMyAdmin.**

Provide the details as prompted by the various fields on the page that appears:

User name:	root	(default security setting);
Password:	*****	
Host:	localhost	(default);
Database name:	civicspace_db	(see discussion above);
Table prefix:		(NO PREFIX);
CiviCRM		(no changes in this section);
User name:		(NO USERNAME);
Password:		(NO PASSWORD);
Host:	localhost	(default);

Check both check boxes and

Press the “Create tables” button.

This will result in a display of the Finishing up page with a Success message and the notification:

Important: You now need to [make sure to turn off write permissions to sites/sites/default/settings.php and sites/default/civicrm.php](#).

Perform the turn off write permissions via FTP.

Press the “Configure site” button.

Configuring CivicSpace

This will take us to page

<http://24.19.47.204/civicspace-0.8.2-rc5/>
which is the “Welcome to the CivicSpace configuration wizard.”

Press the “Next” button.

Enter the fields prompted on this page that appears (administrator).

Take care to use the email address of your account (**comcast.net** below) that the Mercury mail server mail will transfer through.

Username:	admin	(default);
E-mail address:	framing.the.debate@comcast.net	

Password: *****
Confirm Password: *****

Press the “Next” button.

On the page that appears (basic settings), enter the fields prompted at the page that appears.

Name: National Political Machine On A Laptop;
E-mail address: already supplied;
Slogan: Framing the Debate
Mission: Building a Progressive Political Machine on the Web;

Press the “Next” button.

On the page that appears (getting started), leave the radio button already selected as-is and press the “Next” button.

On the page that appears (site profile), select the first radio button (political action platform) and press the “Next” button.

On the page that appears (profile options), select all check boxes and press the “Next” button.

On the page that appears (user registration), and for the purposes of testing, select the second radio button for administrators to moderate, un-check the anonymous comments and press the “Next” button.

On the page that appears (other features), check all settings and press the “Next” button.

On the page that appears (theme selection), make a choice (democratica) and press the “Next” button.

The last requirement is to

re-establish PHP safe mode in `php.ini` which will take effect on reboot.

This completes and presents the configured installation.

Testing CivicSpace

Following the last action above, the browser is moved to page

<http://24.19.47.204/civicspace/?PHPSESSID=f1f90b067c7a7334921caee2bf729dff>

Found at that page: *“You have already created the account for 'user 1' by completing the configuration wizard. This account has all privileges on your CivicSpace site and overrides the permissions settings configured in your site's administration section.”*

A simple test of integration is to visit

<http://24.19.47.204/civicspace-0.8.2-rc5/?q=admin/settings>

where towards the bottom of the page of even more configurable items will be a useful timezone setting.

This brings the menu list at the left of the page into discussion, and as it contains the entry admin, this selection is rich in site-wide configurable variables. Also, it would be a good policy to introduce the admin to the community through the admin's own blog page, forum topic entry, and other typical posts to an environment such as this.\

In administer/themes are the configurable variables for the environment display such as banner logo, slogan visibility, user photos in posts or comments, the availability of a search box....

Final Configuration of CivicSpace for a Website

As far as the instructions above go, CivicSpace has been installed and configured to work on the laptop only. If you were to place it on the Web and go to another computer and point that foreign browser at the IP of the CivicSpace computer, you would get a page served. However, that page would not appear with the banner nor layout that you observed, and none of the links would work.

How to correct this self-referential address we used throughout the installation and configuration? That can be accomplished in one place:

```
/opt/lampp/htdocs/civicspace-0.8.2-rc5/sites/default/settings.php
```

Make a backup copy of this file within the same directory. Within this file find the line entry

```
$base_url = 'http://24.19.47.204/civicspace-0.8.2-rc5';
```

Change that entry (for a presumed IP address of 67.168.142.159) to

```
$base_url = 'http://67.168.142.159/civicspace-0.8.2-rc5';
```

Or for a presumed URL of poorrichards.info:

Change that entry to

```
$base_url = 'http://www.poorrichards.info/civicspace-0.8.2-rc5';
```

Save the edits made, and confirm at the foreign browser that the page served now has a properly formatted view, and that the links are not broken. This may require you to either refresh your foreign browser to clear the cache, or to clear the cookies for this site's original visit. The same may be accomplished by closing the foreign browser and re-opening it again.

Another issue to take care of is mailing. There are at least two ways to fail sending mail (both experienced by the author):

1. Firewall will not let it penetrate (from reports on the web, not my experience);
2. the mail server of the client's ISP will not let raw IP addressed mail pass through (this means sending from 123.45.67.89);
3. or using the wrong php.ini file to configure php. The solution to this:

Run phpinfo() and verify what path PHP is looking for the **php.ini** file. That should appear in "Configuration File (**php.ini**) Path". Copy your `\winnt\php.ini` file there; restart Apache; and test again

Find that file and make a backup copy put into the same directory.

Edit the following lines:

```
[mail function]
; For Unix only. You may supply arguments as well (default: "sendmail -t -i").
;sendmail_path =
to:
; For Unix only. You may supply arguments as well (default: "sendmail -t -i").
sendmail_path = sendmail -t -i
(note that the leading semicolon is removed)
```

Using CivicSpace

Now comes the fun part, an instructive part, and yet another test (yat?).

Introducing YapBB

YapBB is an acronym for “yet another PHP bulletin board.” This is a common touch of humor from within the Unix and Open Source community. The humor resides in the expression “yet another” which reveals that many in the community have put their hand into designing bulletin boards; and in this case bulletin boards that run under Apache's PHP interpreter.

The purpose of a bulletin board is to allow members of an organization, or the public in general (if so invited) to place comments into what are called “threads” of a topic under discussion. This is similar to a list server that sends around email in the form of a round-robin. The difference is that list servers “push” posted content. Instead, a bulletin board aggregates all postings into a single site where the postings are kept in the order they were made, and associated with the initiating post that gave rise to the thread.

Installing YapBB

Configuring YapBB

Testing YapBB

Installing Client Applications

Client applications are those programs that the user of a computer encounters on a day to day basis. The most common example of such a program is Word for Windows. What follows will describe these applications and how to install them.

Installing OpenOffice

OpenOffice is a suite of office programs that are generally suitable replacements for the

Windows Office suite. OpenOffice contains Writer, Math, Impress, Draw, Calc, and Base that perform the functions for document editing, PowerPoint presentations, and spread sheets, plus other functionality for working with formulas and performing database (Access) activities.

Configuring OpenOffice

Testing OpenOffice

Installing EasyEclipse

EasyEclipse is not a common application found in the office, but is rather one used by programmers. It is what is called an integrated design environment, IDE, for programming. This IDE presumes the user is a Java programmer, but its functionality can be extended to include other features for other Web activities.

Configuring EasyEclipse

Testing EasyEclipse

Installing Jahshaka

Jahshaka is a specialized application that is a high end real time video editor. Its target user is the video producer who wishes to mix and master video productions for Web or CD/DVD distribution. It is another form of IDE focused on multimedia designers.

Configuring Jahshaka

Testing Jahshaka

Installing Audacity

Audacity is a specialized application that is oriented towards audio mixing. Its target user is the audio producer who wishes to mix and master audio productions for Web or CD/DVD distribution. It is another form of IDE focused on multimedia designers.

Configuring Audacity

Testing Audacity

Installing RoBots

The RoBots offered are my creations that serve to explore targeted portions of the Web. Their function is to search targeted pages and test them for content that matches a goal that is described by the user. This is much like those search engines found at Google or Yahoo, but these RoBots are more technical. This increase in technicality is to further refine the search characteristics to reduce the overhead of reading pages that fit a keyword, but where a keyword sift is too encompassing thus allowing a considerable bulk to be considered.

Configuring RoBots

Testing RoBots

CivicSpace Appendix

from

<http://civicspacelabs.org/home/node/14252>

I. Download and unzip (using unzipping software such as WinZip) the latest Drupal release to your desktop

II. Setup database with phpMyAdmin

Create a new database "drupal_db"

Select the database from the dropdown box on the left

Click the "SQL" tab

Upload the drupal SQL script file by clicking the "Browse" button and selecting the database.sql file under the directory "database" in your drupal files

Hit the "GO" button to upload the .sql script and execute it

III. Change settings.php

Open and edit the file located under sites/default/settings.php with a plain text editor such as jEdit. Follow the directions in the file and modify these three settings:

```
$db_url = mysql://user:pass@localhost/drupal_db';
```

(database login & password, URL location of the database. "localhost" usually works by default.)

```
$base_url = 'http://www.example.com';
```

(This is where you want to install Drupal. For base installations, it should be <http://www.example.com>. You can also install drupal to a subdirectory such as <http://www.example.com/drupal2>)

```
$db_prefix = '';
```

(Sometimes your database tables will have a prefix. Ask your webhosting company for help if you think this is causing a problem. Otherwise leave it blank.)

IV. Upload the Drupal files to your server

Using an FTP client such as SmartFTP, upload all the files to your \$base_url directory (public_html or www in FTP usually).

V. Configuring Drupal

Navigate to your base URL (www.example.com) to start configuring your Drupal installation.

Note: This is provided as an extremely quick installation overview! Please refer to the installation guide on Drupal.org for a detailed installation guide or if you have more questions.

Common Problems:

Blank space at end of settings.php

Make sure there is no blank space after the closing ?> tag at the end of settings.php.

Otherwise the PHP engine will have problems. Using a plain text editor such as jEdit usually eliminates this problem. Definitely don't use Microsoft Word or similar to edit

settings.php.

File permissions

Sometimes you'll have to change the file permissions of a single file or for a folder. In your FTP client, such as smartFTP, you can right-click on the file or folder and select "Properties/CHMOD". You can set the permissions by typing in a 3 digit number, or by clicking the appropriate checkboxes.

Can't upload big files

The default PHP settings in php.ini is usually set to 2 megabytes (2M). You can change this by uploading your own version of php.ini with modified variables.

PHP Variables to Modify:

(taken from this Drupal thread)

```
max_execution_time = 60;
max_input_time = 60;
memory_limit = 50M;
upload_max_filesize = 50M;
post_max_size = 50M
```

CivicSpace Appendix

from

<http://civicspacelabs.org/home/node/14253>

Easy Installation Using CivicSpace



Submitted by zirafa on 15 September, 2005 - 5:45pm.

There are a few steps for installing CivicSpace:

- Download CivicSpace (a Drupal distribution)
- Upload the files to your server
- Create a database
- Run the installer wizard

I. Download and unzip (using unzipping software such as [WinZip](#)) the latest CivicSpace release to your desktop




II. Upload the CivicSpace files to your server

Using an FTP client such as [SmartFTP](#), upload all the files to the directory you wish to install CivicSpace (public_html/ or www/ folders usually).

III. Create a database

Many webhosting companies use an application called 'phpMyAdmin' to manage your mySQL database. A database is what Drupal uses to organize the content on your website.

- Create a new database "civicspace_db"  [\[help!\]](#)

IV. Run the CivicSpace Installer

Navigate to <http://www.example.com/install.php> and follow the directions. The installer will setup the database tables for you and run a site configure program that will walk you through configuring your website. The installer may ask you to provide your [database login info](#), [change PHP settings](#) and modify [file permissions](#). More help is provided below.

Common Problems:

Can't Create Database through phpMyAdmin

If you are denied access to creating a database through the phpMyAdmin interface, check your website administration page. Some webhosts require you to create a new mySQL database outside of phpMyAdmin. If you still have trouble figuring out how to create a new database, ask your webhosting provider: "How can I create a new mySQL database?"

How do I find out my database login and password?

For CivicSpace to connect to your database you will need to figure out three things:

- database user name
- database password
- name and location of the database you created

Try using the username and password you use to login to your website administration interface (CPanel, NetAdmin, etc.). If that doesn't work, you may have to create a new user and password for the database you just created. The quickest way to figure out the 3 things above is to contact your webhosting company, who will give you more targeted instructions.

File permissions

Sometimes you'll have to change the file permissions of a single file or for a folder. In your FTP client, such as smartFTP, you can right-click on the file or folder and select "Properties/CHMOD". You can set the permissions by typing in a 3 digit number, or by clicking the appropriate checkboxes. CivicSpace will notify you what permissions to change throughout the install process.

Can't upload big files

The default PHP settings in `php.ini` is usually set to 2 megabytes (2M). You can usually change this by uploading your own version of `php.ini` to your Drupal directory with modified variables. Contact your webhosting company for help if you have trouble changing PHP settings.

PHP Variables to Modify:
(taken from [this Drupal thread](#))

```
max_execution_time = 60;
max_input_time = 60;
memory_limit = 50M;
upload_max_filesize = 50M;
post_max_size = 50M
```

This will set the input and execution times to 60 seconds to avoid timeouts while uploading, and limits the biggest file size to 50 megabytes.

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