

## **Installing Gentoo IRC Freenode** (Questions?: IRC <http://freenode.net/#gentoo>)

- Get Gentoo Minimal CD/Install CD <http://www.gentoo.org/main/en/where.xml>
- Follow the handbook step by step slowly and carefully!  
<http://www.gentoo.org/doc/en/handbook/index.xml>
- There is no need for a desktop. Everything can be done with console commands.

## **Gentoo Portage Packages Needed**

- emerge jpeg
- emerge libxml2
- emerge unixODBC
- emerge dev-db/mysql (if you want MySQL support)

Not confirmed as needed. If your setenvironment.sh is correct and run before the install as stated below you should be fine. Otherwise I can't confirm these till I try again.

- emerge xalan-c (not confirmed if your)
- emerge curl (not confirmed)
- emerge sun-jdk (not confirmed only for TomCat JSP installations)

## **MapGuide Open Source Installation** (Questions?: IRC <http://freenode.net/#mapguide>)

Source files including needed FDO on USB Drive

- fdo-3.2.0.tar.gz
- fdordbms-3.2.0.tar.gz
- fdoshp-3.2.0.tar.gz
- fdowms-3.2.0.tar.gz
- fdogdal-3.2.0.tar.gz
- fdosdf-3.2.0.tar.gz
- fdowfs-3.2.0.tar.gz
- mapguide-1.1.0.tar.gz
- mapguideaptinstaller-1.1.0.tar.gz

## **Mount USB Drive**

- nano /etc/fstab
- Add this line to fstab: /dev/sda1 /mnt/usb vfat noauto,defaults 0 0
- mkdir /mnt/usb
- mount /mnt/usb
- cp /mnt/usb/\* /home (copies the install files to /home)
- umount /mnt/usb

## **Building and Installing Required Components**

- cd /home
- tar vzxvf mapguideaptinstaller-1.1.0.tar.gz
- cd LinuxApt

- `find . -name "*.gz" -exec tar vzx { } ";"`
- `./build_apt.sh`

## Building and Installing FDO

- `cd /home`
- `find . -maxdepth 1 -name "fdo*.tar.gz" -exec tar vzx { } ";"`

### \*\*\*\*\* SHP FDO CODE FIX \*\*\*\*\*

- `nano /home/OpenSource_FDO/Providers/SHP/Src/Provider/ShpOptimizedAggregateReader.h`

Please update `ShpOptimizedAggregateReader.h` so that the line

```
void ShpOptimizedAggregateReader::GetInt64ForCache(FdoIdentifier *itemName, FdoInt64 *int32Value, bool *bIsNull );
```

to this

```
void GetInt64ForCache( FdoIdentifier *itemName, FdoInt64 *int32Value, bool *bIsNull );
```

### \*\*\*\*\* SHP FDO CODE FIX \*\*\*\*\*

### \*\*\*\*\* ODBC/MySQL FDO CODE FIX \*\*\*\*\*

- `nano /home/OpenSource_FDO/Providers/GenericRdbms/Src/UnitTest/Common/FdoInsertTest.cpp`

Please update `FdoInsertTest.cpp` so that the line

```
return (FdoInt64) 9223372036854775807;
```

to this

```
return (FdoInt64) 9223372036854775807LL;
```

### \*\*\*\*\* ODBC/MySQL FDO CODE FIX \*\*\*\*\*

- `cd OpenSource_FDO`
- `nano setenvironment.sh`

Locations for editing `setenvironment.sh`:

`FDOMYSQL=/usr/include/mysql`

`FDOODBC=/usr/lib`

`SDEHOME=<optional if you have sde files otherwise don't touch>`

- `./setenvironment.sh`
- `./build_thirdparty.sh`
- `./build_linux.sh`
- `nano /usr/local/fdo-3.2.0/lib/providers.xml`
- `chmod a+x /usr/local/fdo-3.2.0/lib/*.so*`

## Building OEM Components in the MapGuide Distribution

- `cd /home`
- `tar vzx mapguide-1.1.0.tar.gz`

### \*\*\*\*\* Fix DWF Build SH \*\*\*\*\*

Edit `build_setup.sh` files with "**libtoolize --copy --force**" after "autoreconf --force" (no quotes)

- `nano /home/mapguide-1.1.0/Oem/DWFTK7.1/develop/global/build/gnu/dwfc/core/build_setup.sh`
- `nano /home/mapguide-1.1.0/Oem/DWFTK7.1/develop/global/build/gnu/dwfemap/build_setup.sh`
- `nano /home/mapguide-1.1.0/Oem/DWFTK7.1/develop/global/build/gnu/dwftoolkit/build_setup.sh`

### \*\*\*\*\* Fix DWF Build SH \*\*\*\*\*

- cd mapguide-1.1.0
- ./build\_oem.sh

## Building and Installing the Default Configuration

- aclocal
- libtoolize --copy --force
- automake --add-missing --copy
- autoconf
- ./configure --enable-optimized
- make
- make install

## Auto Start Services

### Apache:

- cp /usr/local/mapguideopensource/webserverextensions/apache2/bin/apachectl /etc/init.d/
- rc-update add apachectl default

**MapGuide Server** (unless you want to create an INIT script this works fine):

INIT script recommended. Work around if needed:

- nano /etc/conf.d/local.start

Add line: /usr/local/mapguideopensource/server/bin/mgserverd.sh &>/dev/null

## Misc Commands and Quick Tips

### Gentoo Linux Based Commands

- emerge gentoolkit, then run "equery f <package>" to find out what files are installed
- for process monitoring run "top"
- ifconfig, for ip address information
- ps -e, get process info
- netstat -a, get networking connections
- emerge <package name> <package name> <package name>, allows package easy installation  
<http://gentoo-portage.com/Browse>
- emerge -vp <package name>, allows you to test package and see if its a install, reinstall or update as well as dependency information
- find /dir1/dir2/ -type f -name 'fileyouarelookingforindir2'
- cat /etc/passwd, gets user info for your system
- iptables -nvL, view iptables firewall rules

## MYSQL User Commands Helper

- mysql
- use mysql

Add MySQL users examples:

- GRANT ALL PRIVILEGES ON dbname TO 'username'@'%' IDENTIFIED BY 'password' WITH GRANT OPTION;
- GRANT ALL PRIVILEGES ON dbname TO 'username'@'192.168.1.%' IDENTIFIED BY 'password' WITH GRANT OPTION;
- GRANT ALL PRIVILEGES ON dbname TO 'username'@'%.google.com' IDENTIFIED BY 'password' WITH GRANT OPTION;

Remove all MySQL users example:

- delete from user;
- FLUSH PRIVILEGES;

Add MySQL as Service

- rc-update add mysql default

## Misc Comments by Author

**Q.** Why Gentoo?

**A.** It's better than a sharp stick in the eye.

**Q.** How do I run the web services on port 80?

**A.** Add "Listen 80" to the httpd.conf file.

**Q.** How do I secure the site?

**A.** Get a firewall (emerge iptables) and remove unneeded web files from the web directories. I also made sure there is a index.html file in all directories to prevent directory browsing.

**Q.** What is IRC?

**A.** It's a chat based system great for getting help with open source software. Get the client for Windows at [www.mirc.com](http://www.mirc.com) and get server connect info for Freenode at [http://freenode.net/irc\\_servers.shtml](http://freenode.net/irc_servers.shtml).

**Q.** Remote terminal? I like my Windows machine can I remote?

**A.** After you setup SSHd you can run a program like PuTTY (<http://the.earth.li/~sgtatham/putty/latest/x86/putty.exe>) on Windows. I found this made coping and pasting commands while browsing documents VERY helpful.