Portable GIS:
GIS on a USB Stick
FOSS4G 2007 Victoria

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Introduction

- Beginners need help, BUT:
- Not everyone has the facility/time to learn programming or l33t ninja command-line skillz,
- The learning curve is steep,
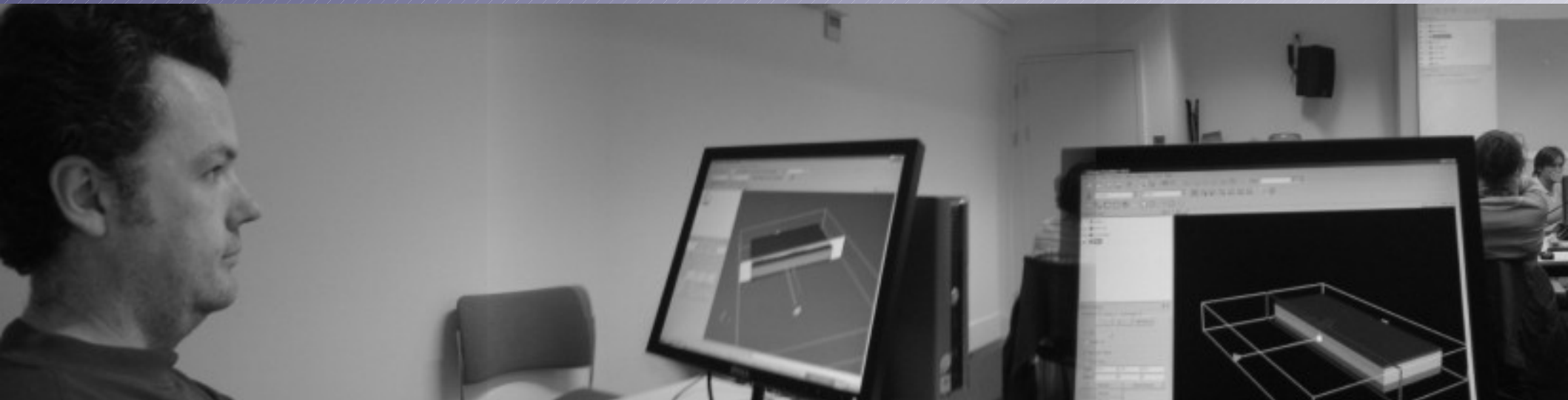- Mailing lists are occasionally intimidating...

```
Command Prompt

Microsoft Windows [Version 6.0.6000]
Copyright (c) 2006 Microsoft Corporation.  All rights reserved.

C:\Users\Jo>?_
```

Modus Operandi

- Make it easy to use,
- Totally portable,
- Upgradable,
- Provide info on learning more,
- Contribute something myself

Where to start

- Gather together programmes that work portably,
- Figure out how to get them to work independently from the drive letter,
- Add a menu system for configuration and use,
- Add documentation on use, updating, and where to find more

```
File  Edit  Format  View  Help
@echo off
:: A simple script to allow one to use FWTools for win
:: without installing anything on the host.
::
:: Save with .cmd extension to ensure command.com is no
:: from win9x). The script will only work on windows 20
::
:: Initial version 2007 Feb 16, Matt Wilkie (maphew@gma

if not %cmdextversion% GEQ 2 goto :WrongCmd

:Main
        cls & echo.
        rem Root fwtools home dir to the same directory this script exists in
        set FWTOOLS_DIR=%~dp0
        echo FWTools home is %FWTOOLS_DIR% & echo.

        rem Add fwtools bin directory to path and make sure gdal is there.
        for %%a in (gdalinfo.exe) do (
                if [%%~dp$PATH:a]==[] path=%FWTOOLS_DIR%bin;%PATH%
                )
        gdalinfo --version || goto :NotFound

        rem List available commands
        echo. & echo Available exe commands are: & echo.
        dir /d %FWTOOLS_DIR%bin\*.exe |find ".exe"
        echo. & echo Available python commands are: & echo.
        dir /d %FWTOOLS_DIR%bin\*.py |find ".py"

        goto :EOF

:WrongCmd
        echo.
        echo Sorry, this script requires CMD.exe with extension
        echo version 2 or above (Windows 2000 or later)
        echo.
```

```
File  Edit  Format  View  Help
@echo
rem This file has been modified from c:\msys\1.0\msys.bat to launch winGRASS
rem (http://geni.ath.cx/grass.html).

set DRIVE_LTR=%~d0
set STARTUP_DIR=%DRIVE_LTR%\GEO-XAMPP\Msys\1.0
set PATH=%PATH%;%DRIVE_LTR%\GEO-XAMPP\mingw\bin;%DRIVE_LTR%\GEO-XAMPP\Quantum Gis
set GRASS=grass
echo I am on drive %DRIVE_LTR% and in directory %STARTUP_DIR%
set GRASS_WISH=wish84.exe
```

What's on the stick

- Desktop GIS: GRASS, QGIS,
- Tools: FWTools,
- Web Server: XAMPPlite,
- Databases: Mysql, PostgreSQL,
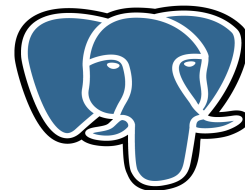- Web Mapping: Mapserver, GeoServer, OpenLayers, Mapbender

My own learning curve

- Batch files,
- Open Source Licensing

```
if NOT "x%WD%" == "x" set WD=

rem ember command.com only uses the first eight characters of the label.
goto _WindowsNT

rem ember that we only execute here if we are in command.com.
:_Windows

if "x%COMSPEC%" == "x" set COMSPEC=command.com
start %COMSPEC% /e:4096 /c %0 GOTO: _Resume %0 %1 %2 %3 %4 %5 %6 %7 %8 %9
goto EOF

rem ember that we execute here if we recursed.
:_Resume
for %%F in (1 2 3) do shift
set WD=.\bin\

rem ember that we get here even in command.com.
:_WindowsNT

if "x%WD%" == "x" set WD=%~dp0\bin\

rem ember Set up option to use rxvt based on value of %1
if "x%MSYSCON%" == "x" set MSYSCON=rxvt.exe
if "x%1" == "x-norxvt" set MSYSCON=sh.exe
if "x%1" == "x--norxvt" set MSYSCON=sh.exe
if "x%MSYSCON%" == "xsh.exe" shift

if "x%MSYSTEM%" == "x" set MSYSTEM=MINGW32
if "%1" == "MINGW32" set MSYSTEM=MINGW32
if "%1" == "MSYS" set MSYSTEM=MSYS

if NOT "x%DISPLAY%" == "x" set DISPLAY=
```
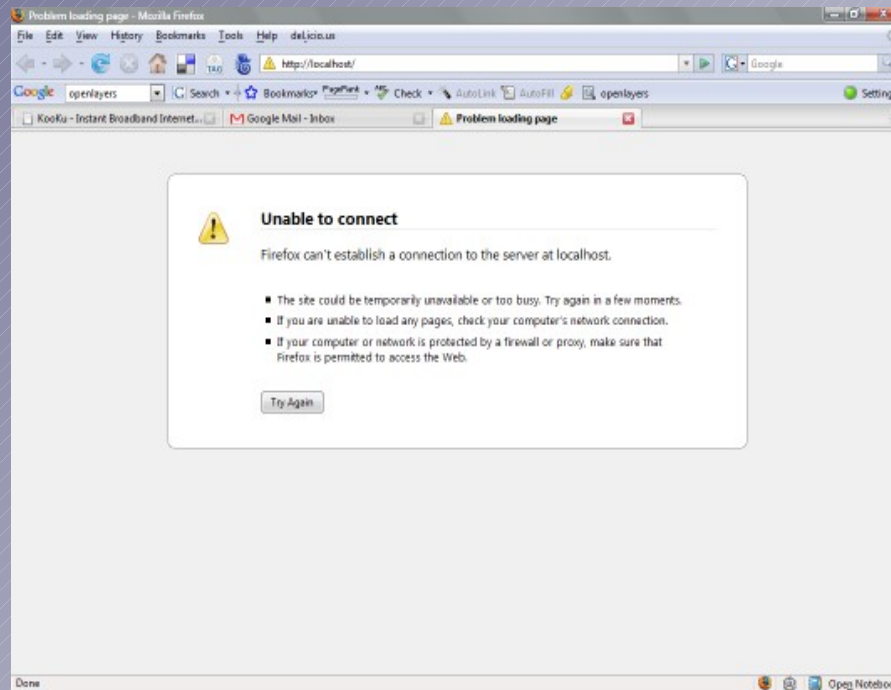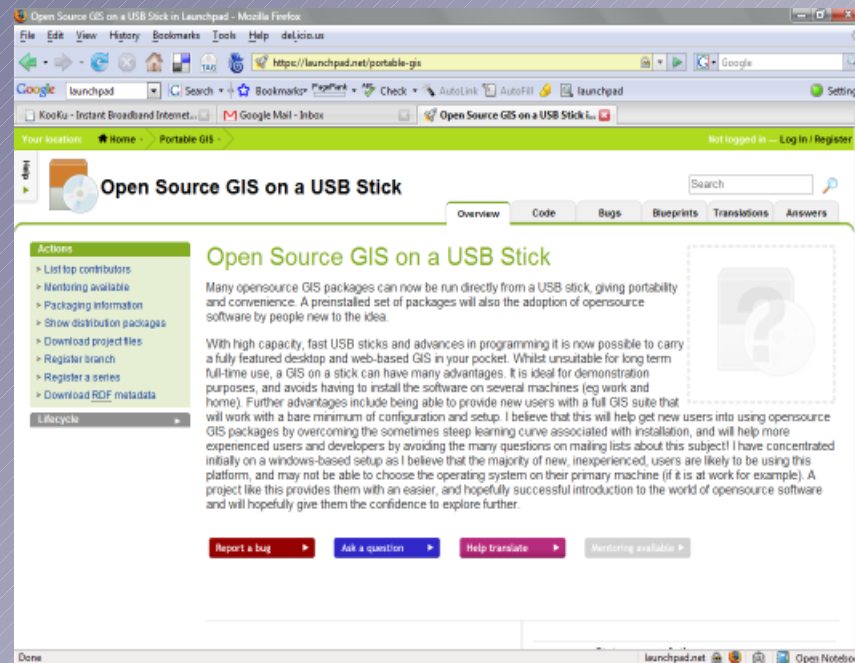
Problems

- Installation of PostgreSQL and GRASS both quite complex,
- Difficult to upgrade cleanly,
- Size of package (currently 800MB including data),
- Won't work if the windows machine is locked down,
- Some antivirus packages think it's a threat,
- Security- not for production use

Ways forward

- Add new programmes (particularly web-based),
- Update existing programmes,
- Improve documentation,
- Sourceforge/Launchpad,
- Make versions for mac and linux?

Where to get further information

http://www.archaeogeek.com/blog/portable-gis
http://thehumanjourney.net/geospatial
http://launchpad.net/portable-gis

Thanks!