

*Splinters of a Fractured Mind:  
Law, Cross-Platform Development,  
LDAP and Doctor Who*

Presented by Jeremy Malcolm  
for the Perth Linux Users Group  
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# Law

- Open source and proprietary software are at war.



- So is open source winning on the legal battlefield?



# *Wins*

- GPL upheld in Germany 15/4/04
  - Netfilter/iptables v Sitecom
  - Injunction granted in terms of GPL
- Legal defence funds established
  - Red Hat's Open Source Now for developers
  - OSDL's Linux LDF for end users sued by SCO
- ACT open source bill passed 10/12/93
  - Government must consider



# *Losses*

- BnetD – Battle.net clone – ruled in breach of DMCA 30/9/04
- SCO v IBM – 6/3/03 and pending
- DeCSS lawsuit mania 27/12/99
- Tridge's rproxy presented at CALU 99 would reduce Web traffic by 85%



# *What we need to win*

- The GPL to be upheld in the USA
  - IBM has raised the issue in the SCO case!
- A public and humiliating loss for SCO
- We will see a groundswell as market share increases with the release of:
  - OpenOffice.org 2.0 in March 2005
  - Firefox 1.0 today (yay!)



# *Cross-platform development*

- Here is one case study.
- Assumptions:
  - We are lazy.
  - Our users like GUI interfaces.
  - They don't like Web interfaces, though.
  - We would like to run on at least Linux, Mac and Windows platforms.



# *Possibilities*

- Java
  - High overhead, steep learning curve
- Qt
  - Moderate overhead, some language choice
- TCL/Tk
  - Lightweight but lowest common denominator
- wxWidgets (formerly wxWindows)
  - A good balance all round, but...



## *So I chose...*

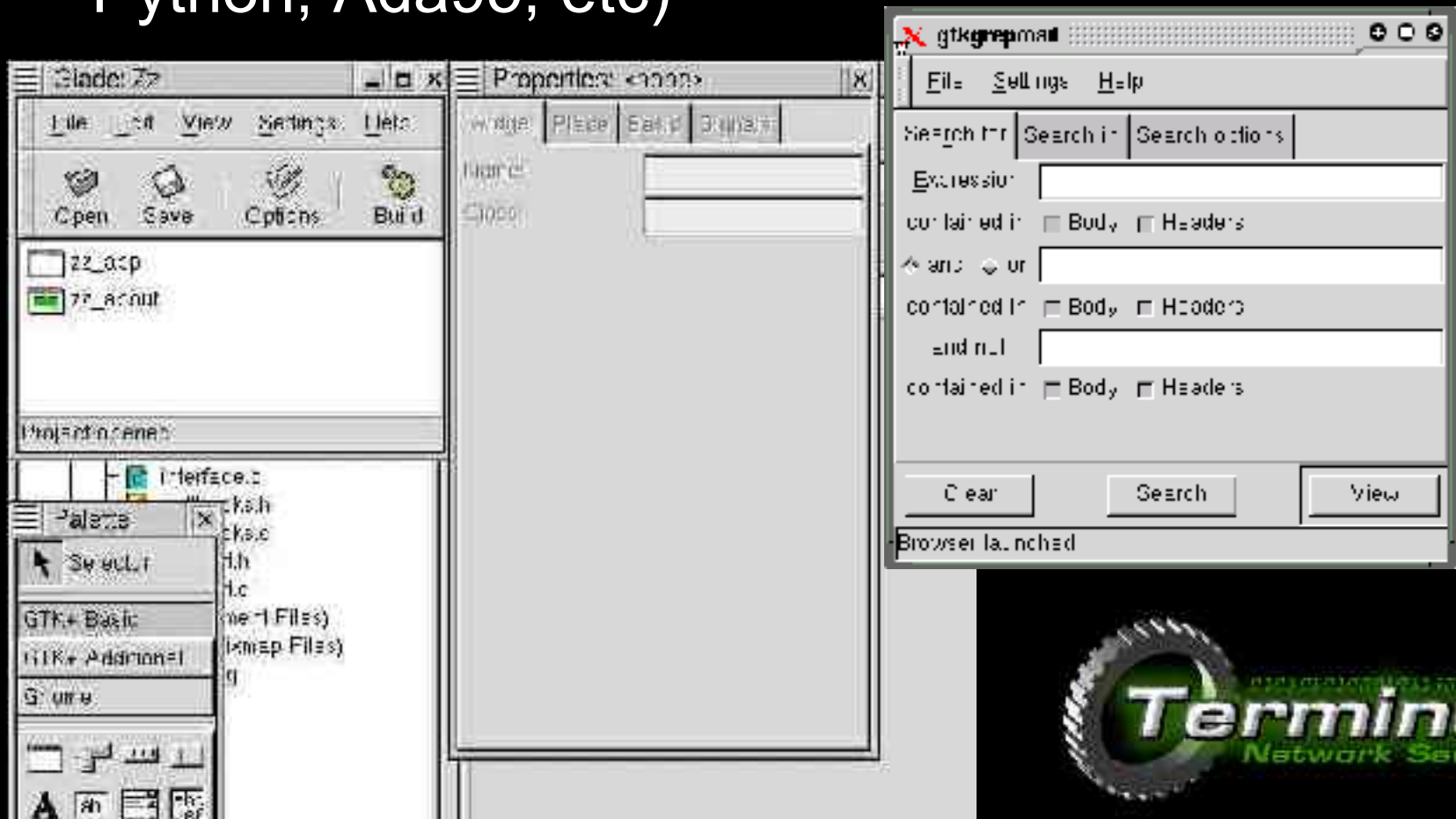
- Perl!
- On Linux we use Gtk-Perl
  - <http://www.gtkperl.org>
- On Mac we use Camelbones
  - <http://camelbones.sourceforge.net>
- On Windows, Win32::GUI
  - <http://sourceforge.net/projects/perl-win32-gui>





# Perl-GTK

- Build your interface with Glade
  - <http://glade.gnome.org> (also works with C++, Python, Ada95, etc)



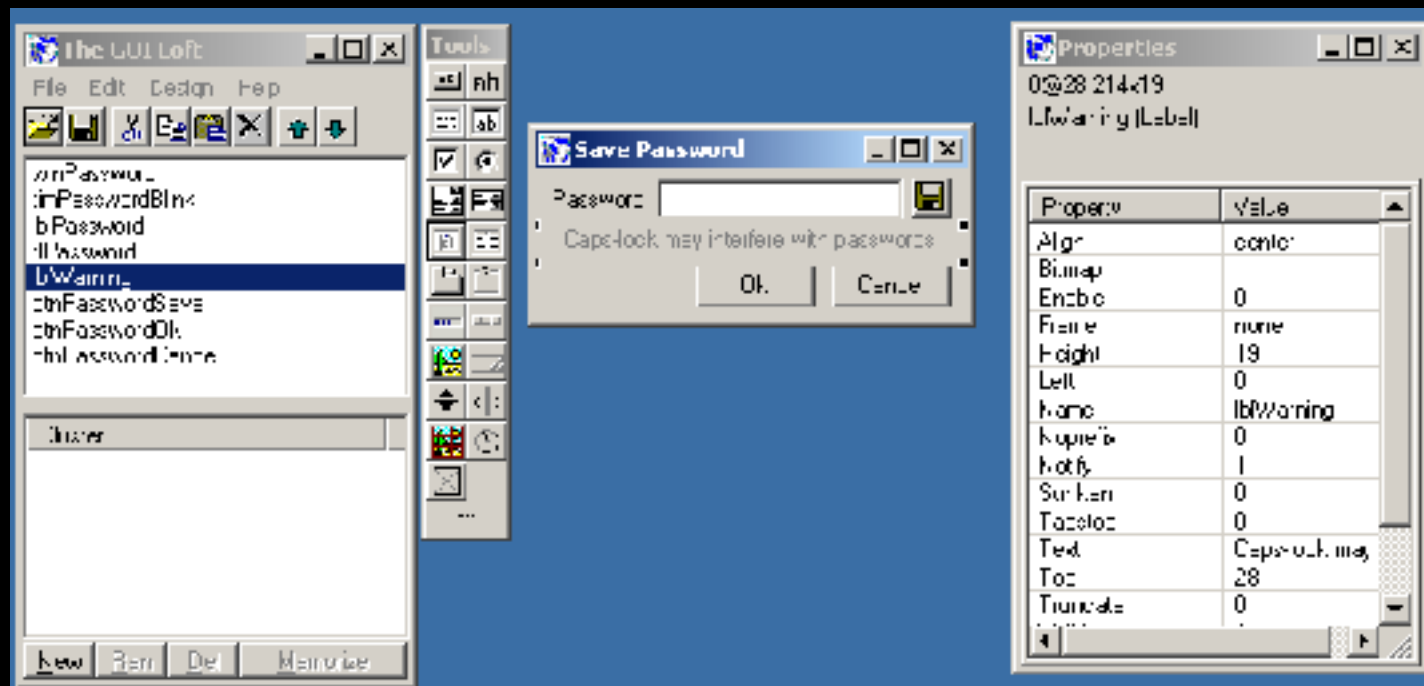
# *Camelbones*

- An Objective C/Perl bridge framework
- Gives you access to Cocoa classes within Perl
  - What is Cocoa? It's Mac OS X's object oriented development platform normally programmed in Objective C or Java
- Integrates nicely into the Mac IDE Xcode and Interface Builder



# W32::GUI

- GUI Loft WYSIWYG design tool
- <http://www.bahnhof.se/~johanl/perl/Loft>



# *How does the code look?*

```
use Gnome;
# Main program routine
Gnome->init("$package", "$VERSION");
dlgMain_new();
# Now let Gtk handle signals
Gtk->main;
sub msgError_new {
    $errortext = shift;
    # Construct a GnomeMessageBox 'msgError'
    $msgError = new Gnome::MessageBox("$errortext", 'error');
    # Construct a GtkVBox 'dialog_vbox1'
    $dialog_vbox1 = $msgError->vbox;
    $dialog_vbox1->show;
    # Construct a GtkHButtonBox 'dialog_action_area1'
    $dialog_action_area1 = new Gtk::HButtonBox;
    $dialog_vbox1->add($dialog_action_area1);
    $dialog_action_area1->show;
    # Construct a GtkButton 'btnOK'
    $btnOK = Gnome::Stock->button('Button_Ok' );
    $dialog_action_area1->add($btnOK);
    $btnOK->show;
    $btnOK->signal_connect( 'clicked', "on_btnOK_clicked" );
    $msgError_form->show;
}
sub on_btnOK_clicked {
    $msgError_form->destroy()
};
```



# *Other GUI options with Perl*

- Perl/Tk (think Tcl/Tk with Perl)
- wxPerl (think wxWidgets with Perl)
- PerlQt (think Qt with Perl)
- Pashua (think gdialog with Perl etc.)
  - [http://www.bluem.net/downloads/pashua\\_en](http://www.bluem.net/downloads/pashua_en)
  - Only for Mac OS X!



# LDAP

- Lightweight Directory Access Protocol
- Why I am an expert in LDAP:

**Subject:** [plug] More obscure problems: Netscape roaming, Coda  
**From:** Jeremy Malcolm <Jeremy@Malcolm.wattle.id.au>  
**Date:** Tue Jan 2 11:05:47 WST 2001

While I'm at it, here are some more obscure problems that someone might be able to throw some light on:

1. I've set up Netscape roaming profiles with an LDAP server. It seems to work, but none of the things in the profile that I am trying to synchronise are actually being synchronised. Dumping the data to an LDIF file I find that only my user information is in there, and nothing else (eg. bookmarks, contacts...). Netscape doesn't report any errors.



# *What is LDAP?*

- A directory service
  - Cf. Active Directory, Novell NDS, Sun NIS+
- Derived from X.500, the OSI directory access protocol
- A lightweight database for data that is read often and written seldom
  - eg. address books, login data



# *What does it look like?*

- A plain text LDIF file looks like this:

```
dn: dc=example,dc=com
dc: example
o: example.com
objectClass: top
objectClass: dcObject
objectClass: organization
```

DN = Distinguished Name  
DC = Domain Component  
O = Organisation

```
dn: ou=people,dc=example,dc=com
ou: people
objectClass: top
objectClass: organizationalUnit
```

OU = Organisational Unit

```
dn: cn=admin,dc=example,dc=com
cn: admin
userPassword: secret
objectClass: top
objectClass: organizationalRole
objectClass: simpleSecurityObject
```

CN = Common Name





# *What can we do with it?*

- We can manage it with CLI tools:

```
$ ldapadd -D "cn=admin, o=Terminus, c=AU" -W < file.ldif
$ ldapsearch -x -b "o=Terminus, c=AU" "cn=Jeremy Malcolm" sn mail
$ ldapmodify -h ldap.terminus.net.au -W -f file.ldif
```

- Or GUI tools such as GQ
- Did I mention that I like Perl?

```
use Net::LDAP;
$ldap = Net::LDAP->new('ldap.terminus.net.au');
$ldap->bind(dn => 'cn=admin,o=Terminus,c=AU',password => 'secret');
$result = $ldap->add (
    dn      => "cn=$login, ou=People, o=Terminus, c=AU",
    attr => ['cn'      => ["$login", "$fullname"],
            'sn'       => "$surname",
            'givenname' => "$givenname",
            'uid'       => "$login",
            'mail'      => "$email",
            'userpassword' => "$id",
            'objectclass' => ['top', 'person',
                              'organizationalPerson',
                              'inetOrgPerson' ],]
);
```



# *What do I do with it?*

- Get a database dump from my client:

2615	Summers	Buffy	bsummers@sunnydale.edu
1110	Rosenberg	Willow	brosenberg@sunnydale.edu

- Process it with a nice Perl script
- Use the results in applications like:
  - WebGUI
  - Sympa
  - Mozilla
  - OpenOffice.org



# *Doctor Who*

- New BBC Wales series coming in 2005
- Executive Producer Russell T Davies
  - *Queer as Folk*
- Christopher Eccleston is the Doctor
  - *The Others*
- Billie Piper is his companion Rose Tyler
- The Daleks will return!



# *The New Doctor Who Logo*



Doctor Who ® & logo TM © BBC 2004

[bbc.co.uk/doctorwho](http://bbc.co.uk/doctorwho)



# *The End*

- Questions?
- My email address is  
[Jeremy@Malcolm.id.au](mailto:Jeremy@Malcolm.id.au)
- My Web sites include:
  - <http://www.ilaw.com.au>
  - <http://www.terminus.net.au>
  - <http://www.malcolm.id.au>

