

گروه کاربران لینوکس مشهد

برنامه نویسی در لینوکس

مجدید (مصطفی‌پور)

مهرداد موهمنی

<http://mtux.wordpress.com>

جشن نصب لینوکس

مشهد - پائیز ۸۷ <http://mashhadlug.org>

چه زبانی؟

- اکثر زبانهای برنامه‌سازی حتی C# از این نظر می‌توان بحث را دو شاخه کرد:
- برنامه‌نویسی با زبانهای قابل کامپایل (برنامه‌نویسی)
- برنامه‌نویسی با استفاده از زبانهای اسکریپت (اسکریپت‌نویسی)

اسکریپت چیست؟

- برنامه‌ایست که برای اجرا به برنامه‌ی دیگری محتاج است.
- در زمان اجرا به زبان ماشین ترجمه می‌گردد.
- در زمان اجرا می‌توان آنرا تغییر داد.
- روی سیستم‌های مختلف به راحتی قابل اجرا است.

```
> print "Hello world!"
```

اسکریپ

- زبانهای اسکریپت نویسی پر کاربرد تر:
 - JavaScript
 - PHP
 - Perl
 - Python
 - Ruby
 - ASP

کاربرد اسکریپتها

- Job control languages and shells (SHELL)
- Application-specific languages (Emacs LISP)
- Web browsers (Mozilla XUL)
- Web servers (PHP, ASP)
- General-purpose dynamic languages (Perl, Python, Ruby)

برنامه نویسی در لینوکس

(1) برنامه با واسط خط فرمان

(2) برنامه با واسط گرافیکی

برنامه با واسط گرافیکی

- توی ویندوز: استفاده از کتابخانه‌های ارائه شده توسط مایکروسافت مثل MFC برای C++
- توی لینوکس: استفاده از یکی از کتابخانه‌های گرافیکی یا widget toolkit موجود

کتابخانه‌های گرافیکی

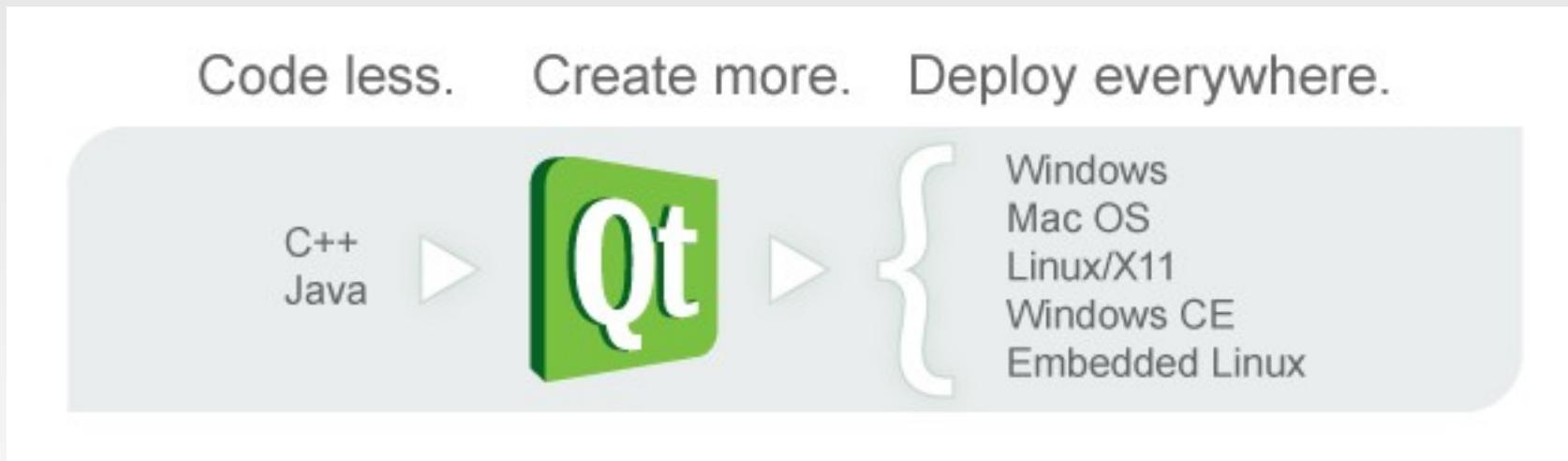
- اکثر کتابخانه‌های موجود و پر کاربرد برای زبان‌های مختلف binding‌هایی دارند.
- و Cross Platform هستند.

چند کتابخانه‌ی پر کاربرد

- Qt
- GTK+
- wxWidgets

Qt

- Qt is a cross-platform **application development framework**, widely used for the development of GUI programs.



- Developed by Trolltech

Features

- Use of native UI-rendering APIs
- Qt Designer
- Qt Assistant
- Meta Object Compiler
 - The signal/slot system
 - type introspection
 - asynchronous function calls

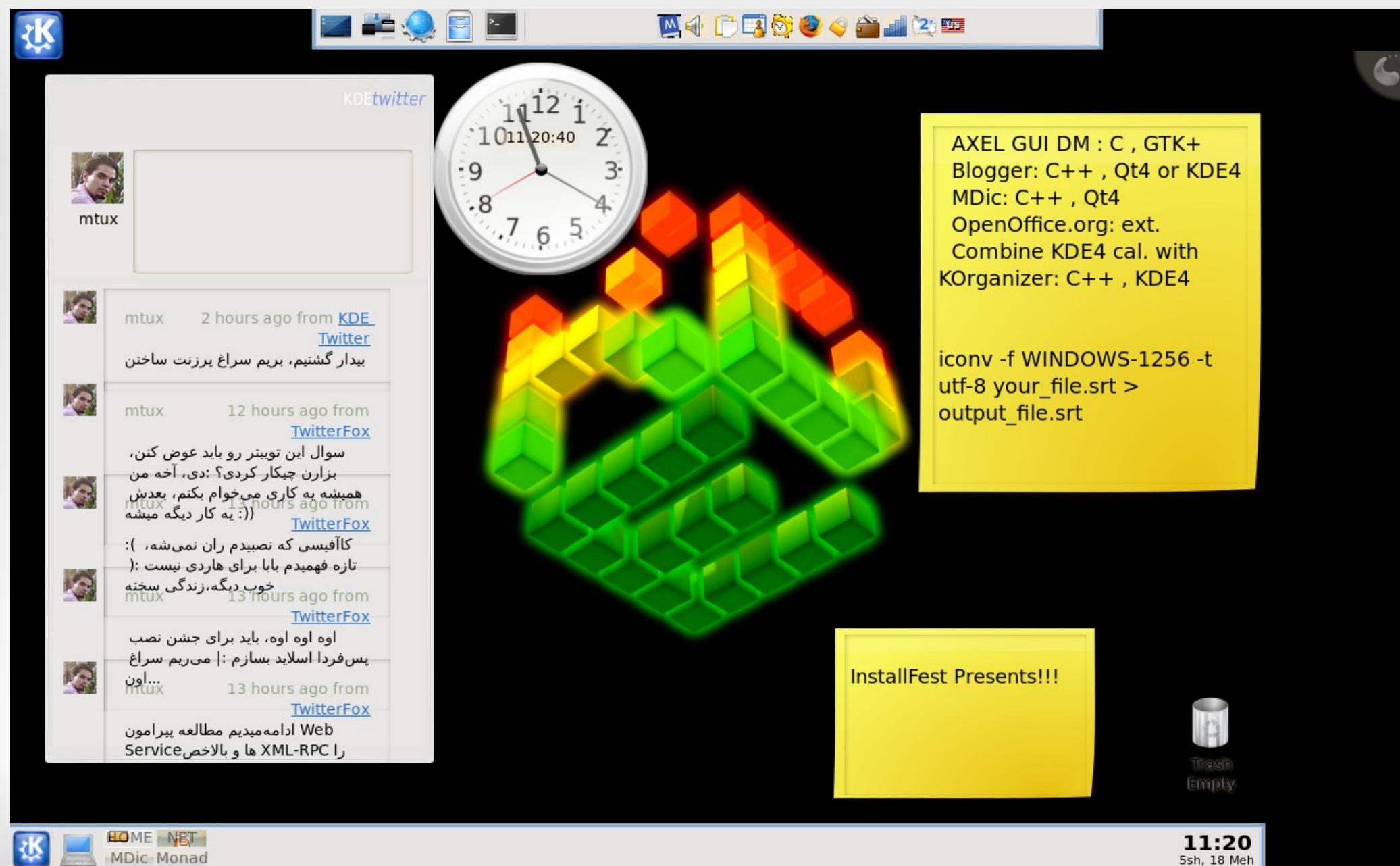
Qt

- Main Language: C++
- Bindings:
 - C# (Qyoto/Kimono)
 - Java (Qt Jambi)
 - Pascal
 - Perl
 - PHP (PHP-Qt)
 - Ruby (RubyQt)
 - Python (PyQt)

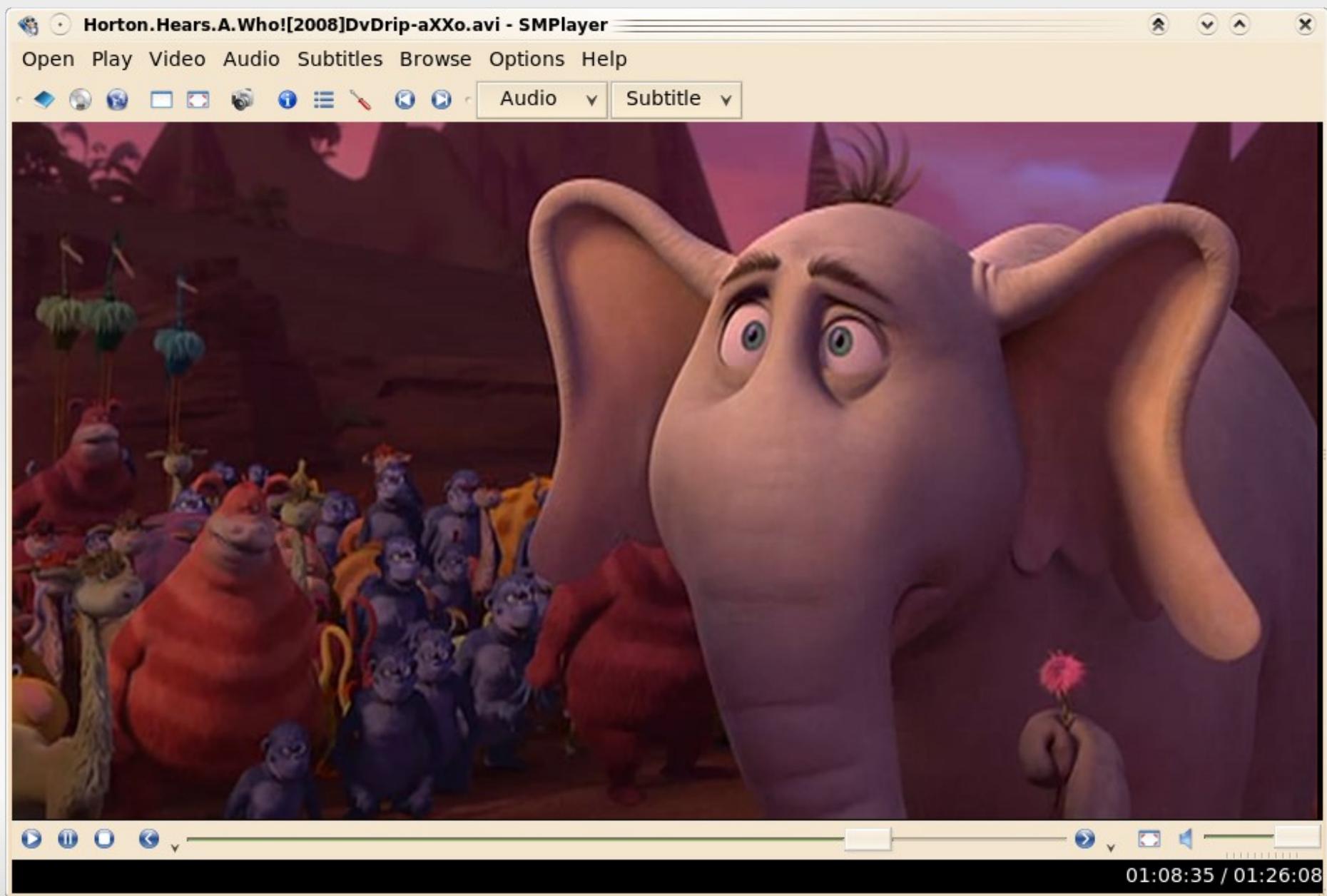
License

- GNU GPL ver.2
- GNU GPL ver.3
- Proprietary

K Desktop Environment

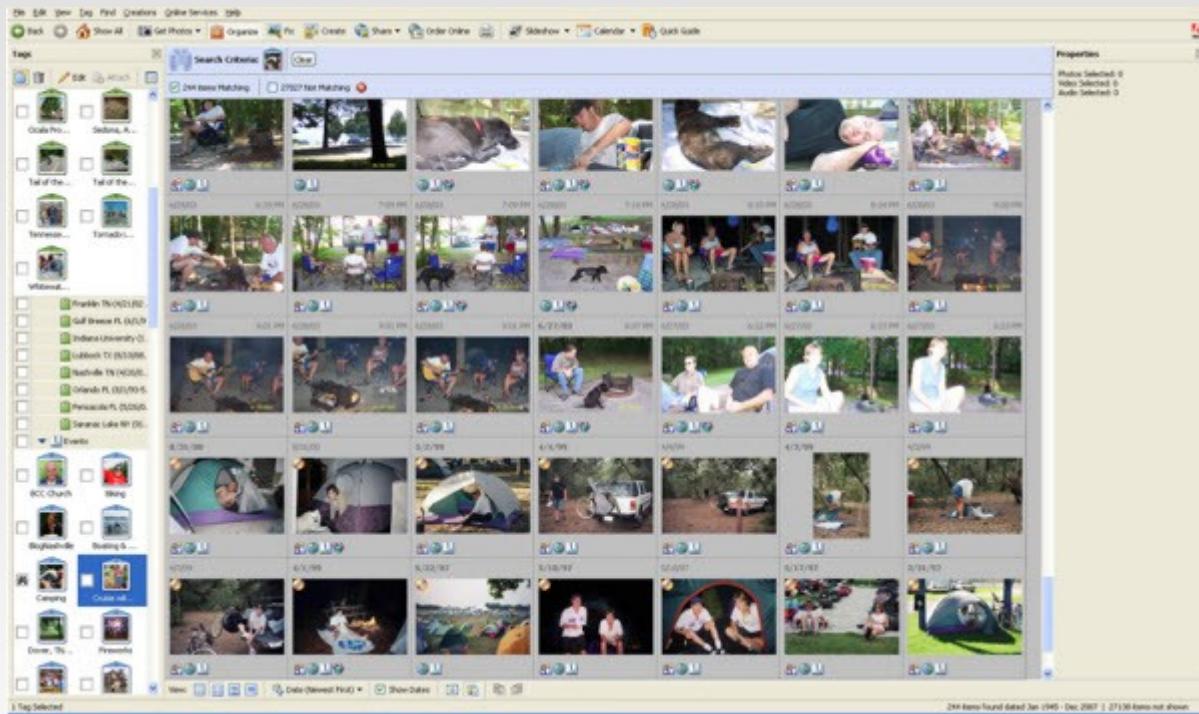


SMPlayer



Google Earth

Adobe Photoshop Album



MDic Dictionary



GTK+

- GTK+, or The GIMP Toolkit, is a cross-platform widget toolkit for creating graphical user interfaces. It is one of the most popular toolkits for the X Window System, along with Qt.
- Developed by GNOME Foundation

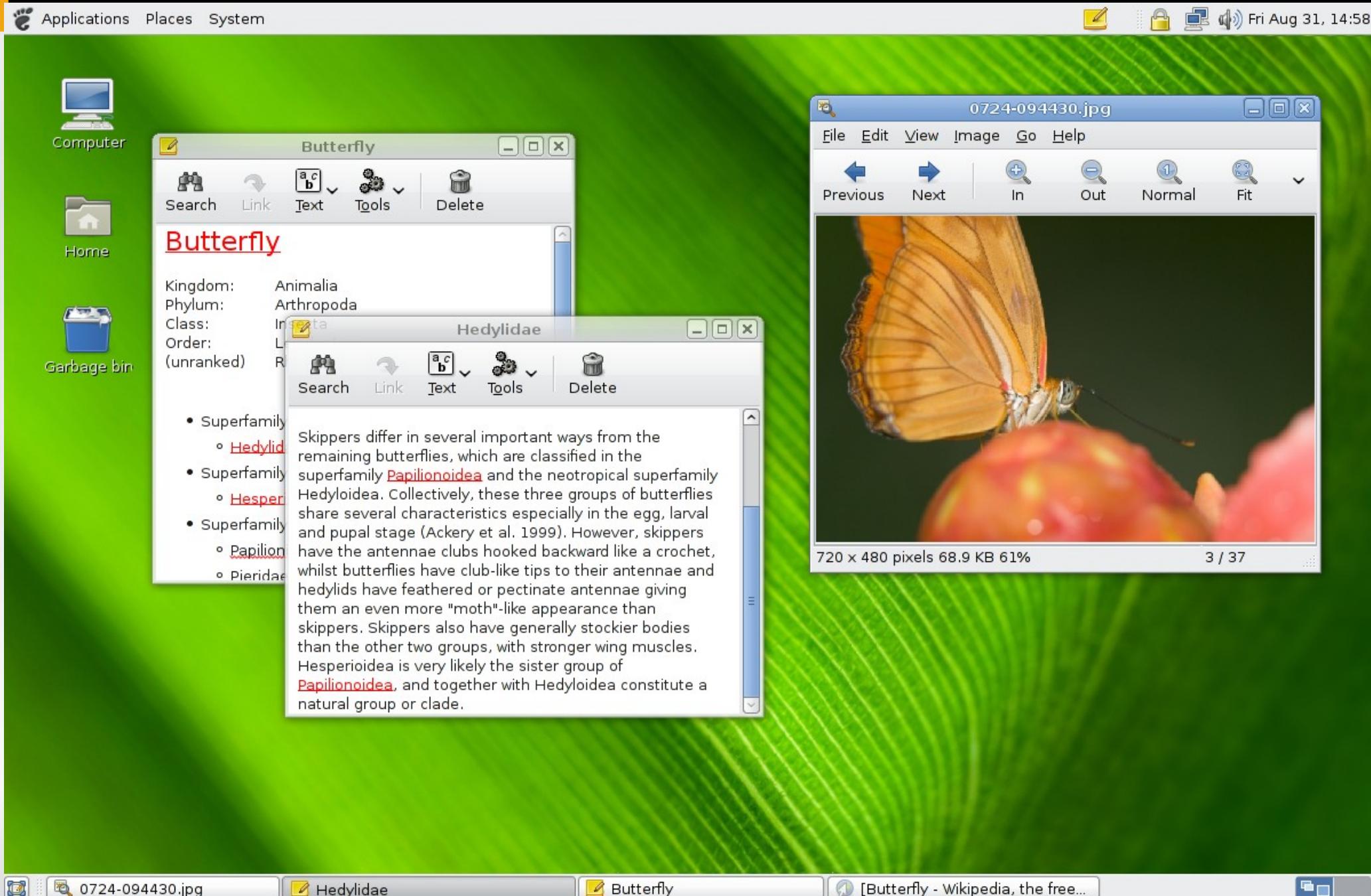
GTK+

- Main Language: C
- Bindings:
 - C++ (gtkmm)
 - Perl (Gtk2-perl)
 - Ruby (ruby-gtk2)
 - Python (PyGTK)
 - Java (java-gnome) (not available for Microsoft Windows)
 - C# (Gtk#)
 - PHP (PHP-GTK)

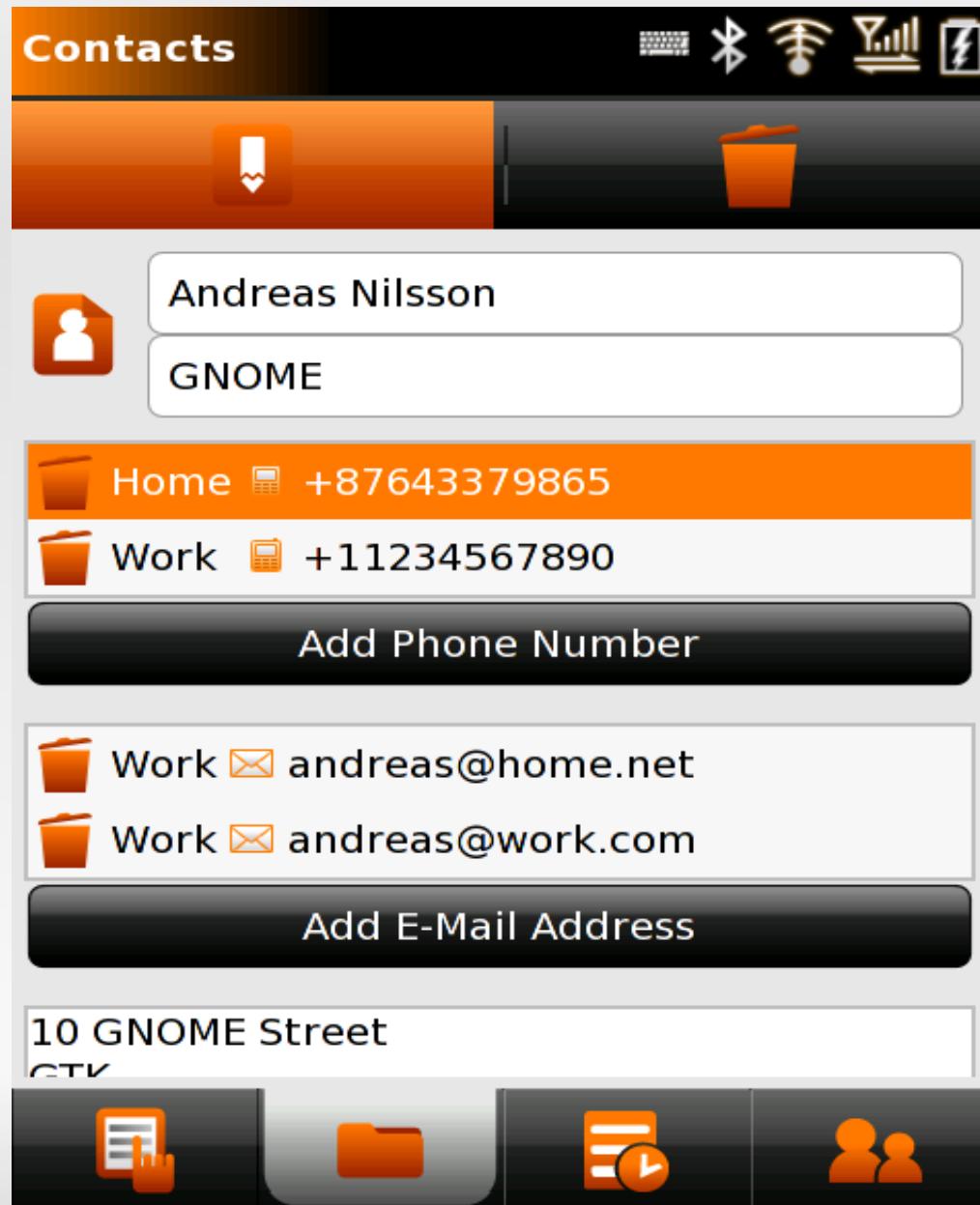
License

- GNU LGPL

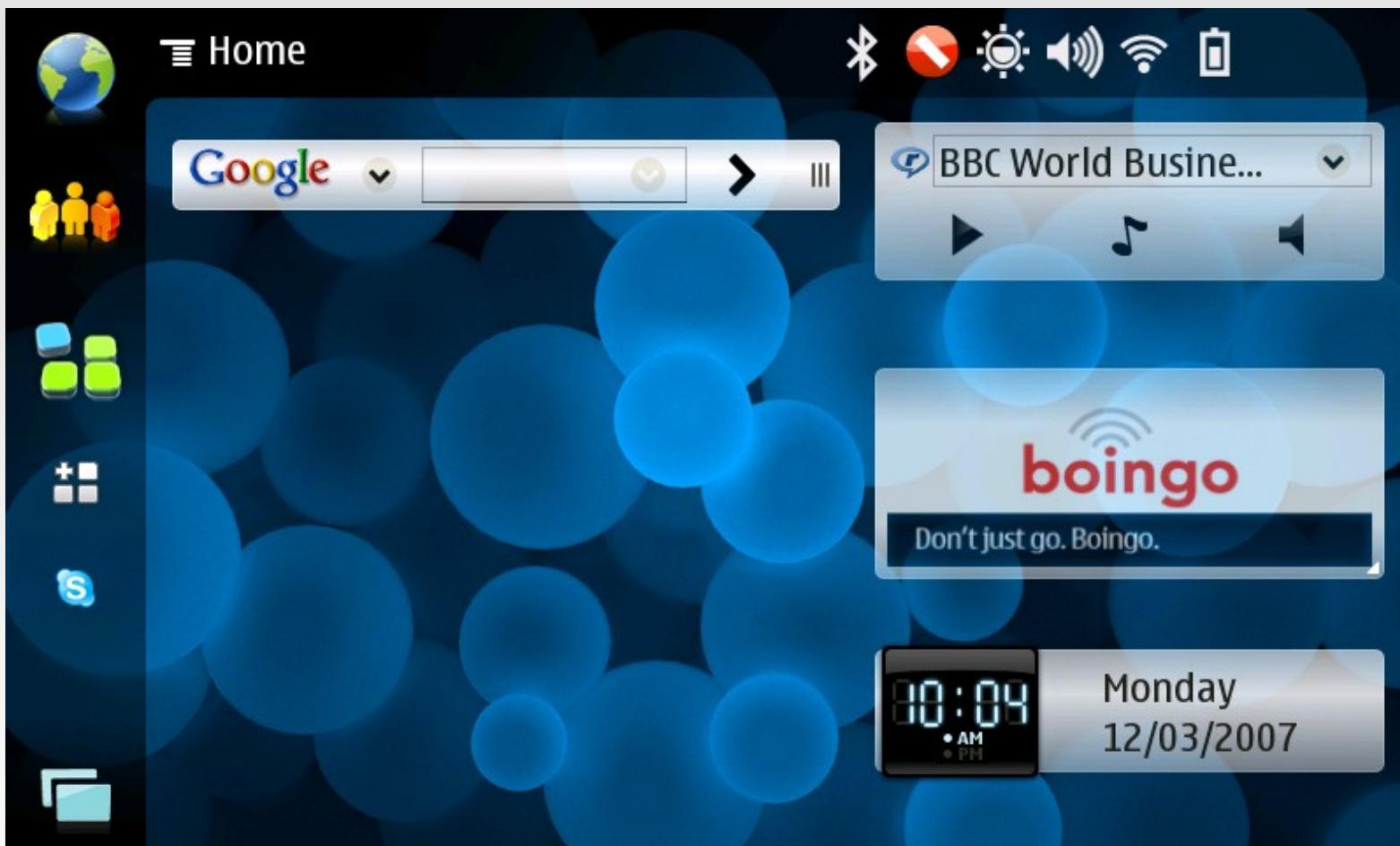
Gnome Desktop Environment



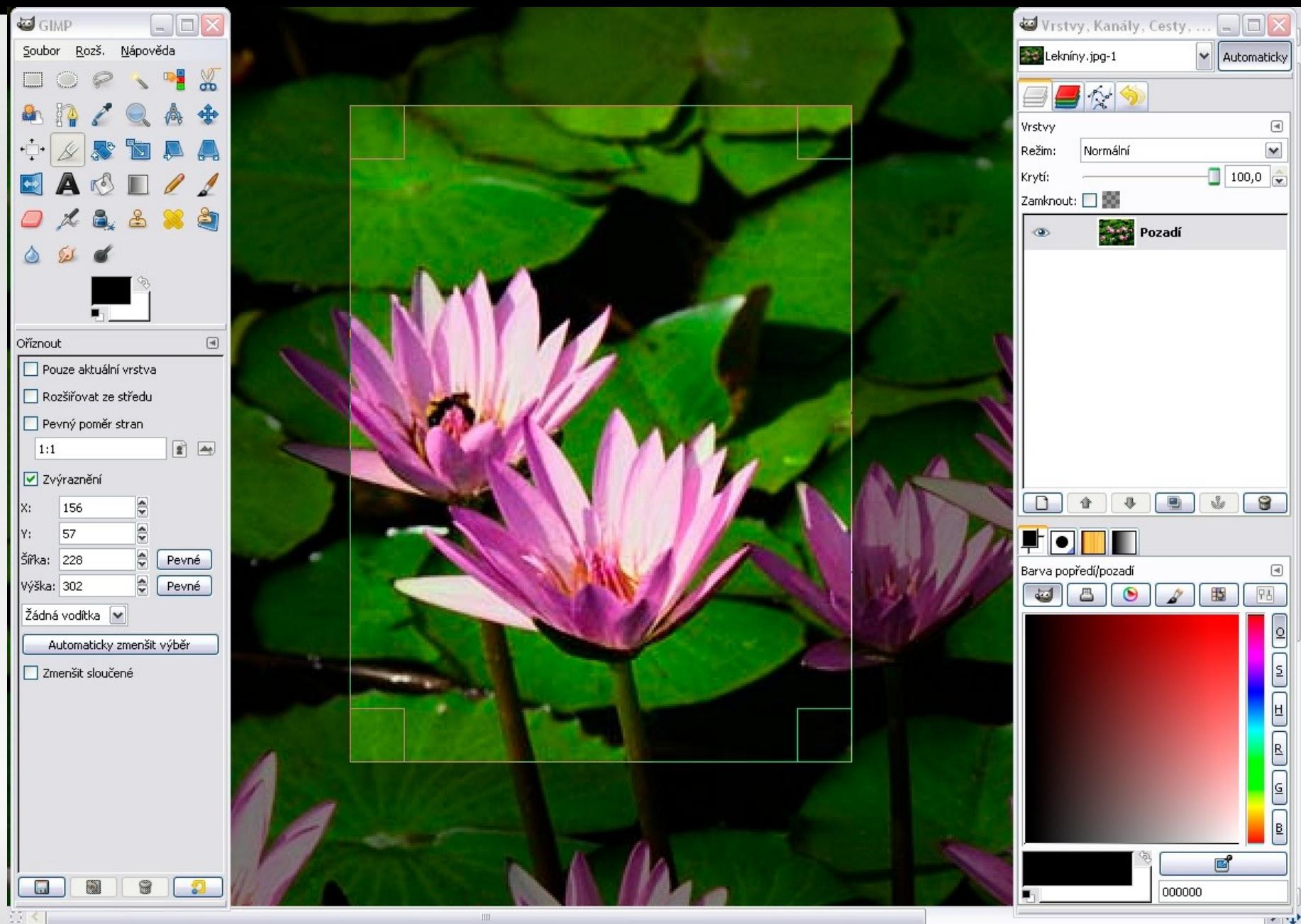
OpenMoko



Maemo



GIMP on windows



wxWidgets

- wxWidgets is a widget toolkit for creating graphical user interfaces (GUIs) for cross-platform applications.

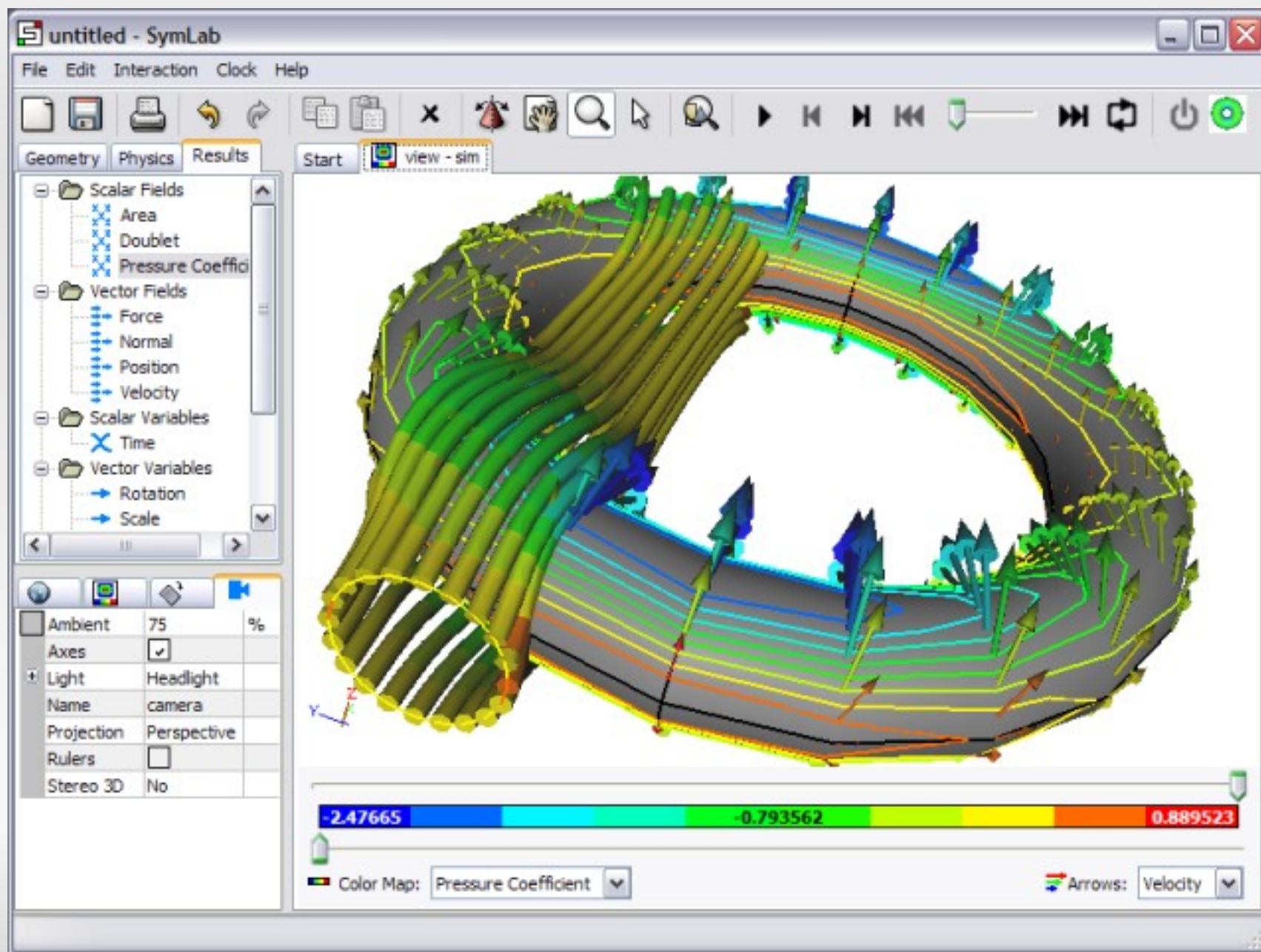
wxWidgets

- Main Language: C++
- Bindings:
 - Python (wxPython)
 - C# / .net
 - Haskell (wxHaskell)
 - Perl (wxPerl)
 - Ruby (wxRuby)
 - Smalltalk (wxSqueak)
 - Java (wx4j)
 - and even JavaScript (wxJavaScript)

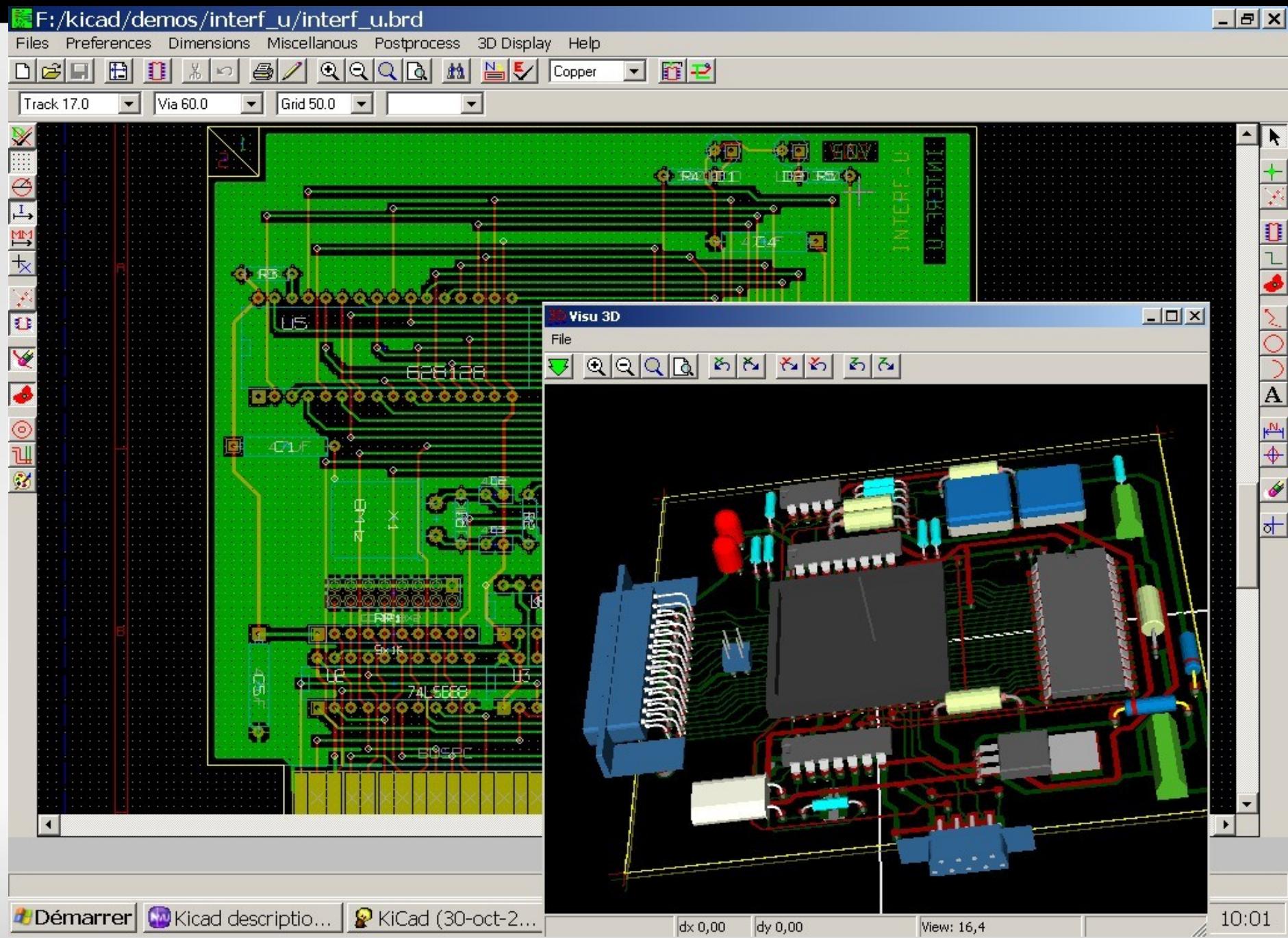
License

- GNU LGPL

SymLab



KICAD



Mono

- A free implementation of "MS .net Framework"
- **What is Mono™ exactly?**

The Mono Project is an open development initiative sponsored by Novell to develop an open source, UNIX version of the Microsoft .NET development platform. Its objective is to enable UNIX developers to build and deploy cross-platform .NET Applications. The project implements various technologies developed by Microsoft that have now been submitted to the ECMA for standardization.

Mono Feature Highlights

- **Multi-Platform**

Runs on Linux, OS X, BSD, and Microsoft Windows, including x86, x86-64, ARM, s390, PowerPC and much more

- **Multi-Language**

Develop in C# 3.0, VB 8, Java, Python, Ruby, Eiffel, F#, Oxygene , and more

Mono Feature Highlights

- **Microsoft Compatible API**

Run ASP.NET, ADO.NET, and Windows.Forms 2.0 applications without recompilation

- **Comprehensive Technology Coverage**

Bindings and managed implementations of many popular libraries and protocols

- **Open Source, Free Software**

Mono's runtime, compilers, and libraries are distributed under OSI approved licenses and are available for dual-licensing

Banshee

The Last American Cowboy (The Bled)

Music Edit Playback View Help

1:28 of 3:49

 The Last American Cowboy
by The Bled from Found In The Flood

Write CD

Music Library (4764)

The Bled (20)

The Receiving E... (13)

Scapegoat - Let... (17)

My Hero is Me - H... (7)

Johnny Cash - T... (27)

Classic Case - ... (11)

As Cities Burn - ... (10)

Favorites (28)

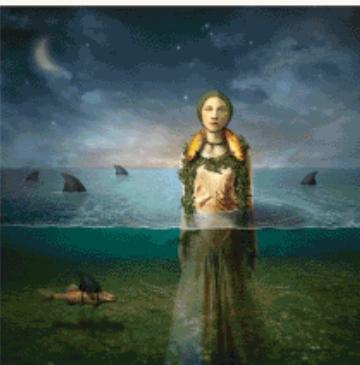
Recent Songs (255)

80 Minutes of Fa... (10)

Podcasts

Aaron's Photo iPod (1323)

New Audio CD



The Bled

Track	Artist	Title	Album	Time	Rating
1	The Bled	Hotel Coral Essex	Found In The Flood	4:09	★★★
2	The Bled	Guttershark	Found In The Flood	3:28	★★★
3	The Bled	My Assassin	Found In The Flood	4:10	★★★★
4	The Bled	Antarctica	Found In The Flood	5:54	★★
5	The Bled	She Calls Home	Found In The Flood	2:35	★★★★★
6	The Bled	The Last American Cowboy	Found In The Flood	3:49	★★★
7	The Bled	Daylight Bombings	Found In The Flood	4:47	★★★
8	The Bled	Millionaires	Found In The Flood	1:26	★★•••
9	The Bled	With An Urgency	Found In The Flood	2:40	★★★★
10	The Bled	I Don't Keep With Liars Anymore	Found In The Flood	37:46	★★★★★
1	The Bled	Red Wedding	Pass The Flask	2:51	★★★
2	The Bled	You Know Who's Seatbelt	Pass The Flask	3:00	★★
3	The Bled	I Never Met Another Gemini	Pass The Flask	4:11	★★
4	The Bled	Ruth Buzzi Better Watch Her Back	Pass The Flask	3:31	★★★
5	The Bled	Sound Of Sulfur	Pass The Flask	3:12	★★★★★
6	The Bled	Porcelain Hearts And Hammers For Tei	Pass The Flask	5:33	★★★★★

Search:

Recommended Artists

 Every Time I Die
100% similarity

 Norma Jean
86% similarity

 As I Lay Dying
70% similarity

 Fear Before the March of Flames
87% similarity

 Underoath
80% similarity

 The Chariot
70% similarity

Top Tracks by The Bled

1. Red Wedding
2. My Assassin
3. I Never Met Another...
...
Gemini
4. Hotel Coral Essex
5. The Last America...
...
Cowboy

Top Albums by The Bled

1. Found In The Flood
2. Pass the Flask
3. His First Crush
4. Ambulance Romance
5. My Assassin - downl...

20 Items, 1:48:57 Total Play Time

Beagle

Desktop Search: venice

Search View Help

Find: venice Find Now

Images 1-4 of 28

DSCF0573.JPG
DSCF0576.JPG
DSCF0582.JPG
DSCF0574.JPG

Documents 1 result

England on the Eve of Coloniza...
2 pages

Conversations 6 results

Case Daily - September 29, 2006 Case Daily Sep 29
Re: Italy Until the 3rd Kevin Kubasik Jun 23
Re: Italy Until the 3rd Sean Carlos Jun 23

DSCF0573.JPG
Modified: 3 weeks ago (October 12, 2006)
Full Path: /home/kjk38/Photos/2005/2/25/DSCF0573.JPG

F-Spot

F-Spot

File Edit View Find Tags Help

Rotate Left Rotate Right Browse Edit Image Fullscreen Slideshow

Favorites Hidden People Places Events

Air Show (checked)

ID4 2005

Other Clouds Various

Fun Stuff

Name:

Version:

Date:

Size:

Exposure:

2005

Find:

6/18/2005 6/18/2005 6/18/2005 6/18/2005 6/18/2005 6/18/2005

6/18/2005 6/18/2005 6/18/2005 6/18/2005 6/18/2005 6/18/2005

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F-Spot Photo Album

Other

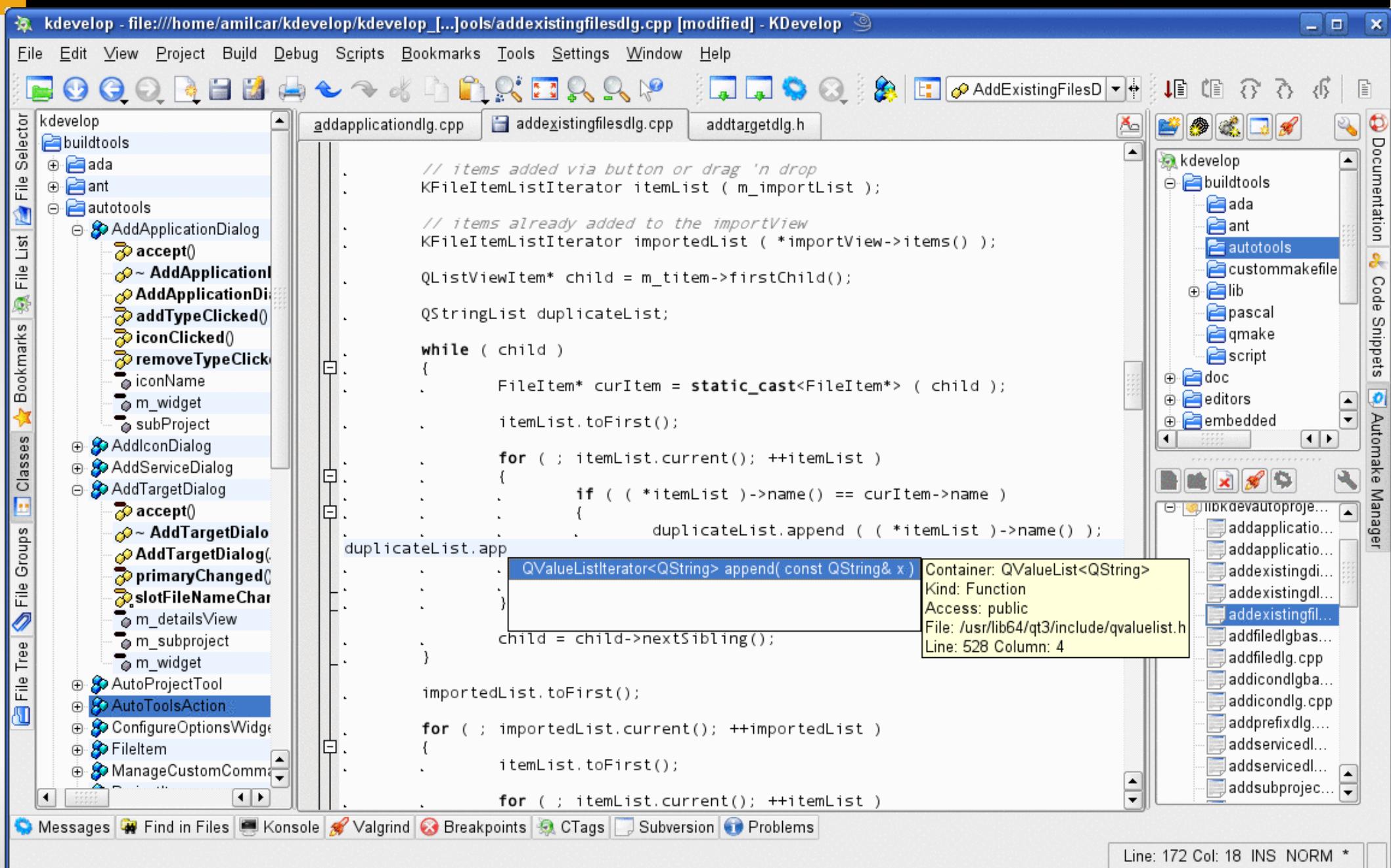
- Gnome DO
- Second Life
- MonoDevelop
- ...



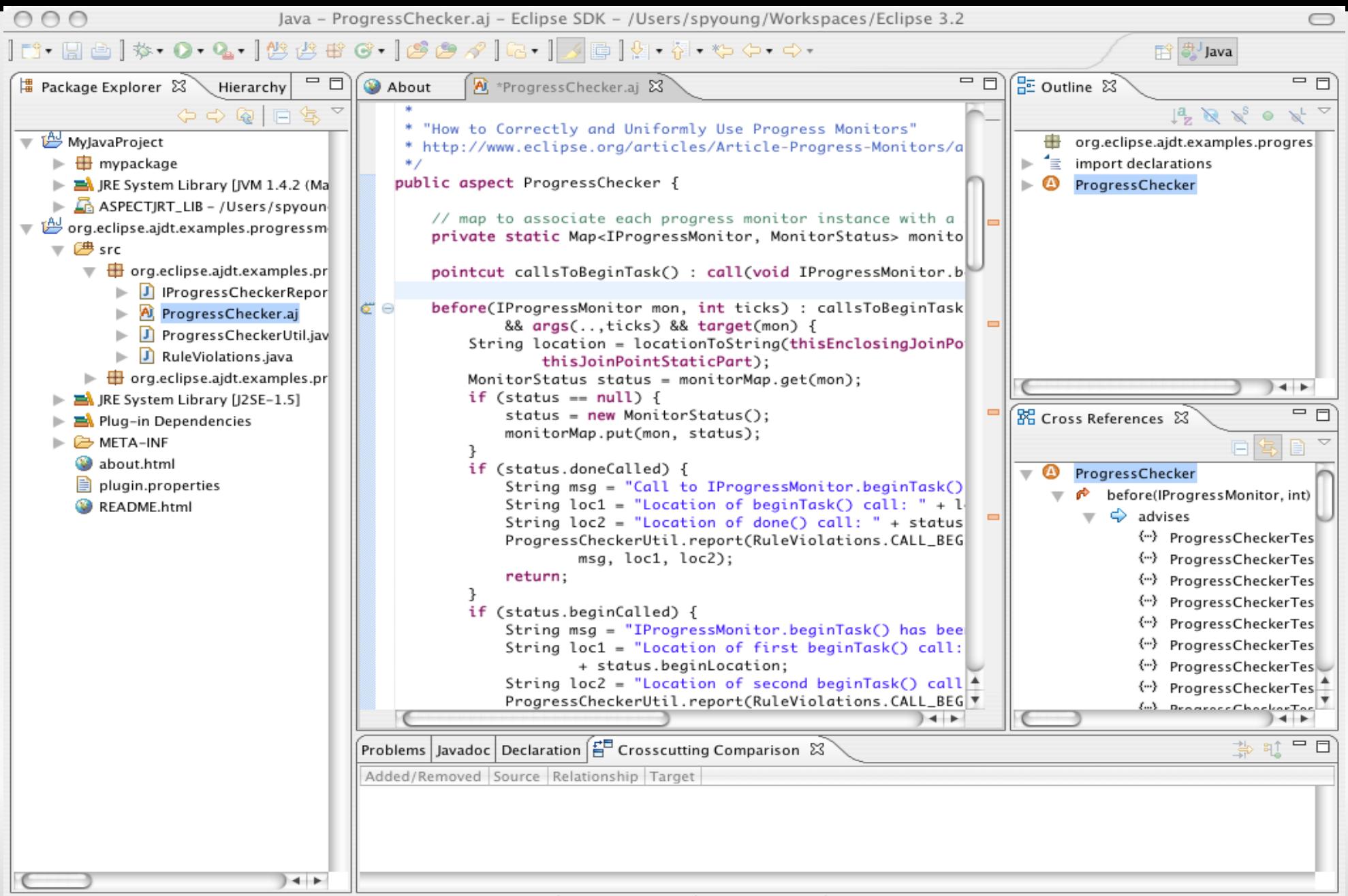
IDE

- Kdevelop (C, C++, Python, FreePascal, Java, Ruby)
- Eclipse (Java, C/C++, PHP, Python, ...)
- Code::Blocks (C/C++)
- Dev-C++ (Delphy, C/C++)
- Anjuta (C/C++)
- Eric (Python)
- MonoDevelop (C#, VB)

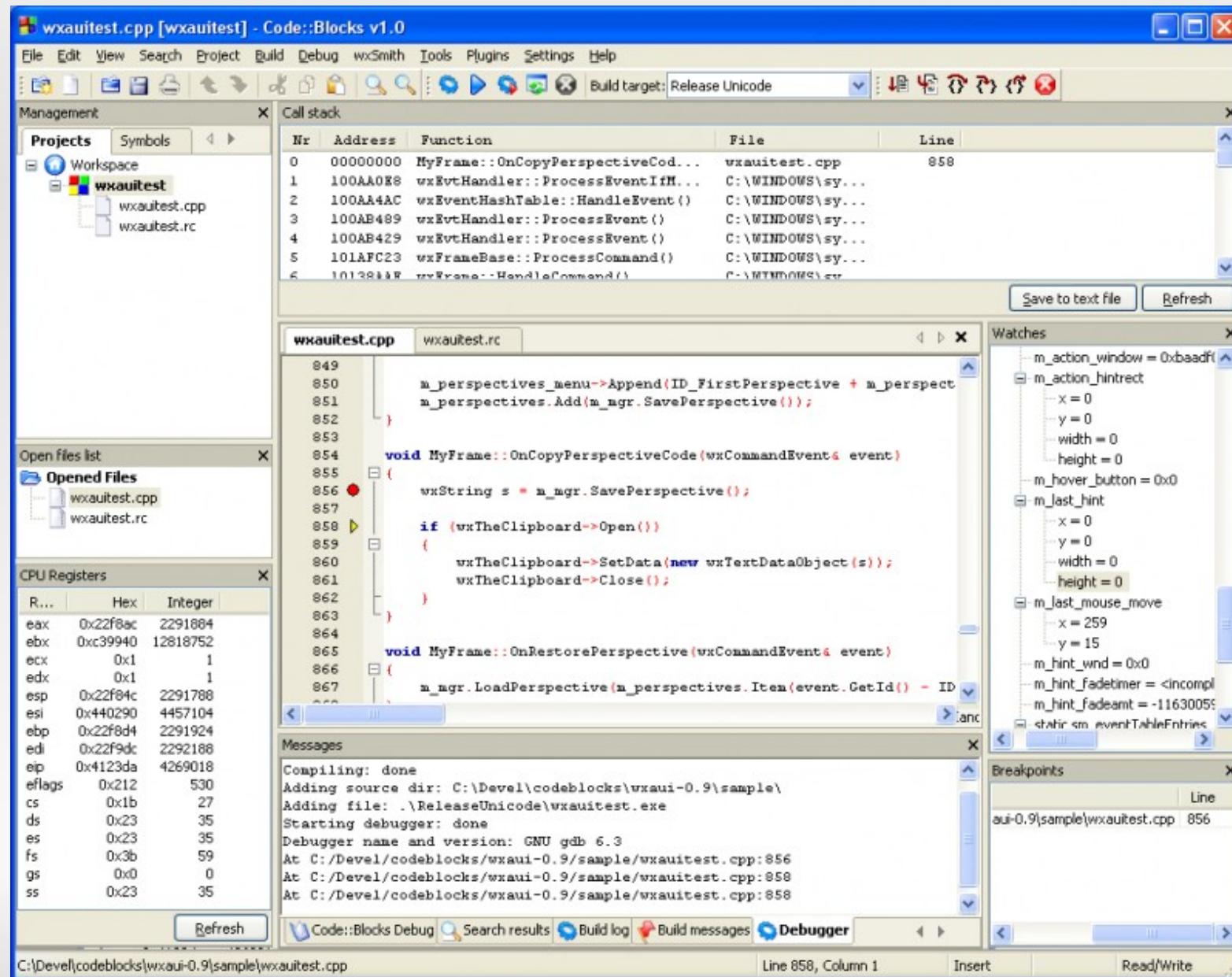
KDevelop



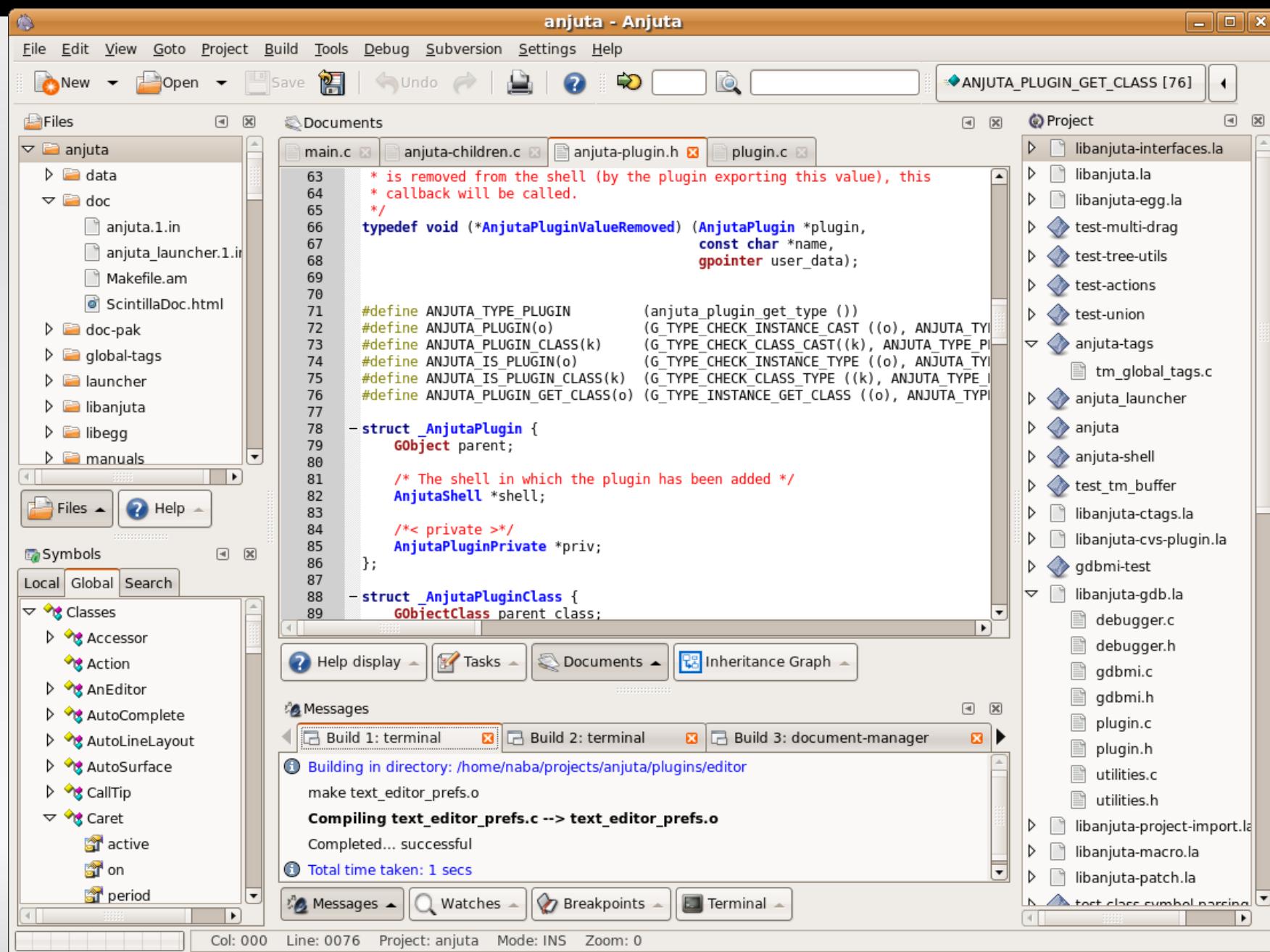
Eclipse



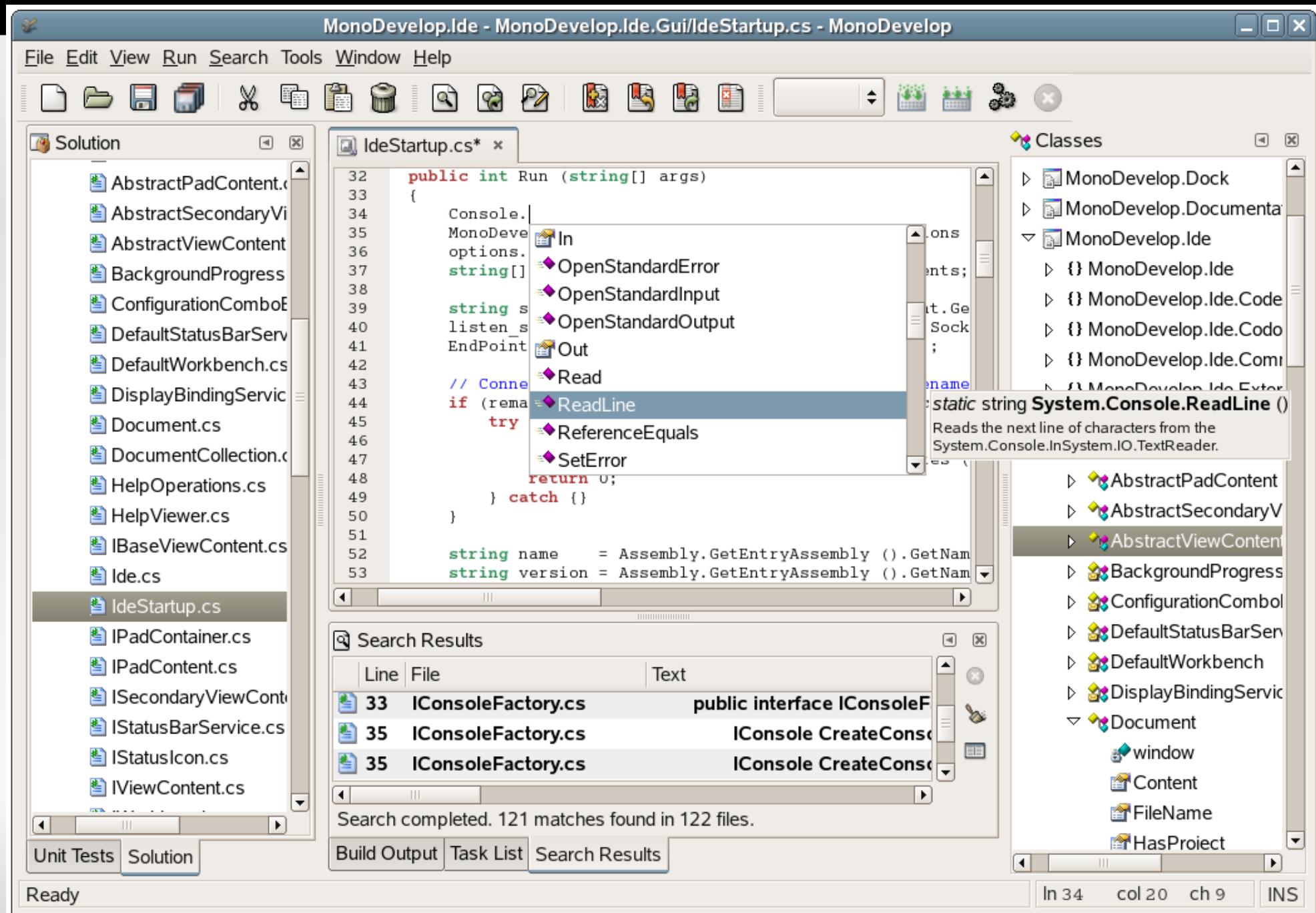
Code::Blocks



Anjuta



MonoDevelop



?

<http://mtux.wordpress.com>