

# Open Source and Summer of Code

Adriano Monteiro Marques  
<py.adriano@gmail.com>

# Agenda

- Open Source (Software Libre)
  - Main Advantages
  - Myths and Truths about Software Libre
  - How to make money with Software Libre
- Google's Summer of Code™
  - What is it?
  - Umit
  - How to make your proposal
  - Most important dates for students

# Software Libre

- The GNU project, was started in 1984 by Richard Stallman
- Currently, there are several licenses considered “open source”. The GPL is not the only one.



# The 4 kinds of Freedom

1. The freedom to run the program, for any purpose
2. The freedom to study how the program works, and adapt it to your needs
3. The freedom to redistribute copies
4. The freedom to improve the program, and release your improvements to the public

# GPL License Compatibility

- There are licenses considered open, but that are **not** compatible with GPL
  - Apache License
  - CDDL
  - Eclipse Public License
  - PHP License
  - and many more...

# The bad guy: Proprietary Software

- Users became hostages of proprietaries technologies
  - AutoDesk's AutoCAD
- The monopoly of technologies delay their progress
- Sometimes, the proprietary software is more expensive than machine that will run it
- It's not possible to adapt proprietary softwares to your needs

# The nice guy: Software Livres

- Freedom of choice
- Technologies grows faster than normal
- Low cost
- Higher Security and Quality
- It's possible to adapt it to your needs
- and more...

# Myths and truths about software libre

- Software libre is free as in beer!
  - No. There is no restriction about this in most of open source licenses. Albeit, it's normal that the vast majority of open source softwares can be freely downloaded from the Internet.

# Myths and truths about software libre

- Open Source is insecure because it's open!
  - No. The whole community is witness that the fact of been open have contributed to raise the security level of the code instead of lower it.

# Myths and truths about software libre

- If I create an open source software and put a price on it, anyone that buy it can freely distribute it after.
  - Depends. If you use a GPL license, for example, this is truth. The license doesn't say you can't sell your software, but it does determine that it must be freely distributed.

# Myths and truths about software libre

- You can't rely on Software Libre. If someday the owners decide to abandon the project you're in trouble.
  - This can happen with proprietary software also, but when it happens with proprietary ones it's far worst, because no one will have the source to continue the project.

# Myths and truths about software libre

- I can use Software Libre in my Proprietary Software.
  - Depends. If it is a GPL licensed software, this can't be done. Using, for example, MySQL data base in proprietary softwares without paying the license for it is not right.

# How to make money with Software Livre

- Maintenance
- Adaptation
- Training
- Documentation
- Donations
- External contributions (code improvement)
- Summer of Code ;-)

# Google's Summer of Code™

- What is it?
  - Project where Google pays students in the whole world to develop innovative and useful open source software in their summer vacations.

# Who can apply?

- From SoC FAQ:
  - As Student: “Google defines a student as an individual enrolled in or accepted into an accredited institution including (but not necessarily limited to) colleges, universities, masters programs, PhD programs and undergraduate programs.”
  - As Mentor Organization: “Mentor organizations must be organizations or individuals running an active and viable open source or free software project”

# Who selects the applications?

- Students: Mentor organization for which the student sent his proposal
- Mentor organization: Google's Open Source Department, which organize and promote the Summer of Code.

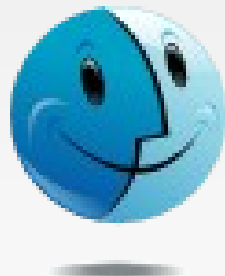
# Rewards

- Experience
- **T-Shirt**
- New Friends
- US\$4.500,00
- Incentive to enhance your english (if you don't speak it already)
- The Software livre that you made with the help of the mentoring organization to boost your resume
- Did I mention the **T-Shirt**?

# UMIT – The Nmap Frontend



The Nmap Frontend



- Started on SoC2005
- Improved on SoC2006
- Cross platform
- Python, GTK and SQLite
- Emphasis on usability(yet, it has too much to be improved!)

# UMIT – The Nmap Frontend

The screenshot displays the Umit Nmap frontend interface. The window title is "Umit ; the nmap frontend ::". The menu bar includes "File", "Profile", and "Help". The toolbar contains icons for "New Scan", "Command Wizard", "Save Scan", "Open Scan", "Search Scan Results", "Compare Results", "New Profile", and "New Profile with Selected".

The main interface features a "Quick Scan on" dropdown menu. Below it, there are fields for "Target:" and "Profile:" (set to "Quick Scan"), along with a "Start Scan" button. The "Command:" field contains the text "nmap -T Aggressive -v -n".

On the left side, there are tabs for "Hosts" and "Services". Below these, a list of hosts is shown with columns for "OS" and "Host".

The main display area has tabs for "Ports / Hosts", "Nmap Output", "Host Details", and "Scan Details". The "Nmap Output" tab is active, showing the following text:

```
Starting Nmap 4.10 ( http://www.insecure.org/nmap/ ) at 2007-03-07 23:48 BPT
Machine [redacted] MIGHT actually be listening on probe port 80
Initiating Connect() Scan against 4 hosts [1679 ports/host] at 23:48
Discovered open port 22/tcp on [redacted]
Discovered open port 80/tcp on [redacted]
Discovered open port 22/tcp on [redacted]
Discovered open port 21/tcp on [redacted]
Discovered open port 23/tcp on [redacted]
Discovered open port 22/tcp on [redacted]
Discovered open port 8080/tcp on [redacted]
Completed Connect() Scan against [redacted] in 1.11s (3 hosts left)
Completed Connect() Scan against [redacted] in 1.24s (2 hosts left)
Completed Connect() Scan against [redacted] in 1.24s (1 host left)
The Connect() Scan took 2.41s to scan 6716 total ports.
Host [redacted] appears to be up ... good.
Interesting ports on [redacted]:
Not shown: 1676 closed ports
PORT      STATE SERVICE
21/tcp    open  ftp
23/tcp    open  telnet
80/tcp    open  http
```

At the bottom of the interface, there is a checkbox labeled "Enable/Disable Nmap output highlight" which is checked. To the right, there are two buttons: "Preferências" and "Atualizar".

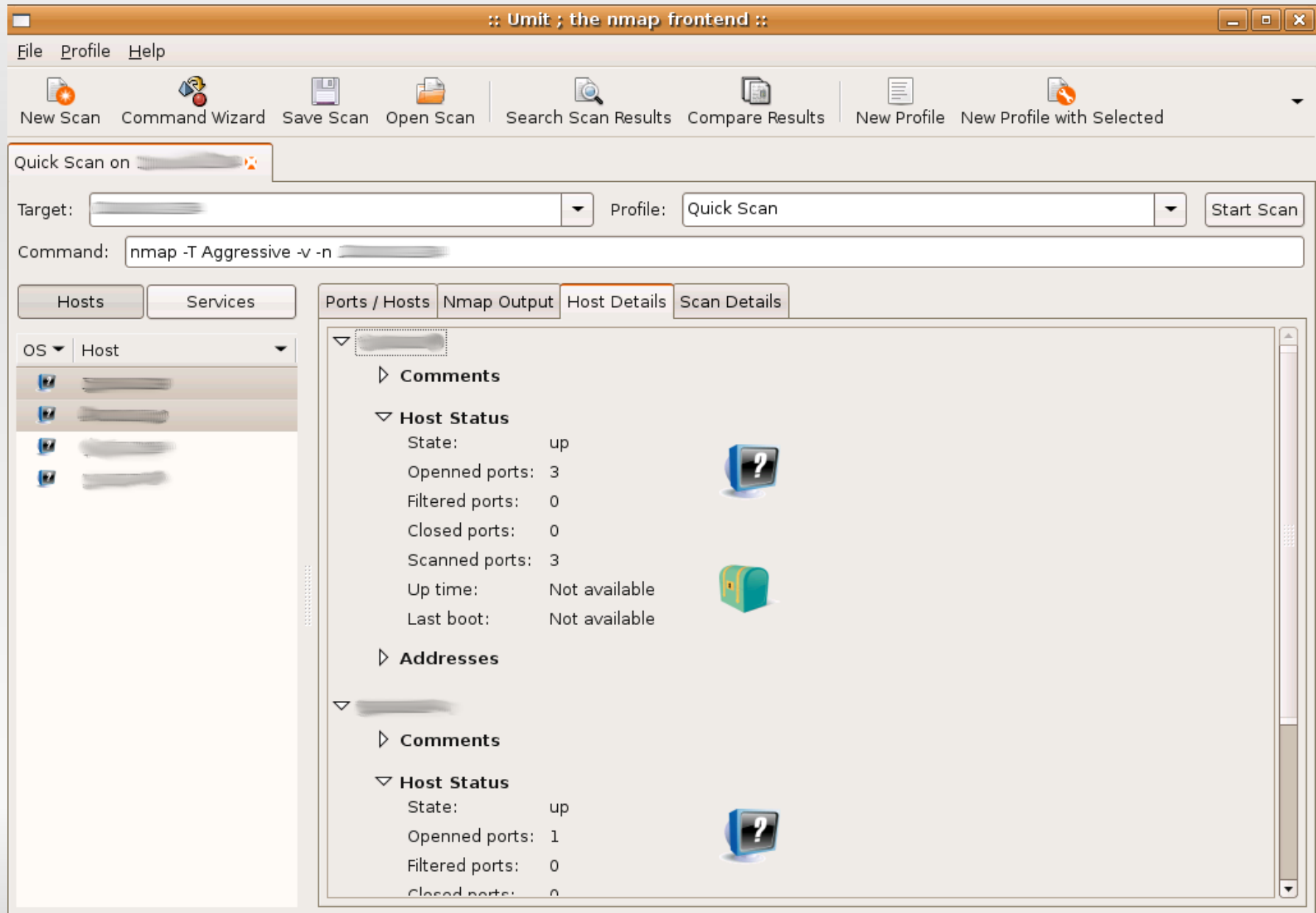
# UMIT – The Nmap Frontend

The screenshot shows the Umit application window titled "Umit ; the nmap frontend". The interface includes a menu bar (File, Profile, Help), a toolbar with icons for New Scan, Command Wizard, Save Scan, Open Scan, Search Scan Results, Compare Results, New Profile, and New Profile with Selected. Below the toolbar, there is a "Quick Scan on" section with a target input field, a "Profile" dropdown set to "Quick Scan", and a "Start Scan" button. The "Command" field contains the text "nmap -T Aggressive -v -n".

The main area is divided into two panes. The left pane, titled "Hosts", shows a list of scanned hosts with columns for "OS" and "Host". The right pane, titled "Ports / Hosts", shows a table of scan results with columns for "Host", "Port", "State", "Service", and "Version".

Host	Port	State	Service	Version
[Redacted]	21	open	ftp	
	23	open	telnet	
	80	open	http	
[Redacted]	22	open	ssh	

# UMIT – The Nmap Frontend



# How to participate?

- Go to: <http://code.google.com/soc>
- Study the proposals or ideas that you think are more interesting
- Select one, or no more than two. It's better to send one very good proposal than several half-done. You can't be accepted in more than one project per Summer of Code.

# The proposal: Study the problem

- Study the best way to solve the proposal you choose, basing your argues on:
  - Portability
  - Users characteristics and behaviors
  - Software Dependencies
  - Development time
  - Runtime performance
  - Which libraries you're going to use
  - The libraries and softwares you chose are open source? Their licenses are compatible?

# The proposal: Make a creative document

- Make a creative proposal, with well structured ideas, and if possible, supported by prototypes you made, examples you found and even mockups of the interface
- A very good proposal might take days to be done!

# The proposal: Important aspects

- It's very important to show preoccupation with the following aspects:
  - Usability
  - Installation
  - Portability
  - Documentation
  - I18N
  - Dependencies

# Don't miss the deadline!

- The students proposal deadline is March 24!
  - PS: In the last hours before deadline, the submission page get's really busy, and many can't send their proposals because of that. Don't send it in the last minute!

# Most important dates for students

- **14/March**: Students proposals submissions are open
- **24/March**: Submission deadline
- **9/April**: List of accepted students
- **28/May**: Coding time begin. Google starts issuing initial payments

# Most important dates for students

- **9/July:** Students must upload their codes to [code.google.com/hosting](https://code.google.com/hosting). Mentors begin mid-term evaluations
- **16/July:** Mid-term evaluation deadline. Google begins issuing mid-term payments.
- **20/August:** Students upload their codes to [code.google.com/hosting](https://code.google.com/hosting). Mentors begin final program evaluation.
- **31/August:** Final evaluation deadline. Google begins issuing final payments

# Thank you!

- Questions?

# Open Source and Summer of Code

- Presented at Universidade Estadual de Goiás, 8th, March 2007.
- Download: [http://uimit.sourceforge.net/soc2007\\_en.pdf](http://uimit.sourceforge.net/soc2007_en.pdf)
- License: GNU Free Documentation License