HOWTO Contribute to #Wireshark

October 2016

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Network Engineer and Core-dev

#sf16eu
• Alexis La Goutte (@alagoutte)
  • Network Engineer @ Cheops
    • French integrator
  • Contributor to Wireshark since 2008 (bug 2948)
  • Core-dev since Avril 2011
    • Author/contributor of HTTP2/QUIC/ieee80211/ISAKMP/Mongo…

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How Contribute?
Wireshark 2.2

- for Wireshark 2.2.0 (since 2.0.0)
  - 4138 commits
  - from 221 contributors
Historic

• from start of project (1998)
  • 65k commits
  • more than 2,5 millions line of code (SLOC)
  • more than 1200 contributors
    • but missing contributors…
Actually

• More 300 commits by month

• New contributor every week (look AUTHORS file!)

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Contributors

• Coming from everywhere
  • Network Vendor: Cisco, Juniper, Riverbed, HPE…
  • Telecom Vendor: Qualcomm, Samsung, Ericsson, Nokia
  • Big Internet company: Google, Facebook...
  • University…

And individual people
Special Contributor (Core team)

~ 50 peoples from start of project

~ 20 « actives »
Special Contributor (Core team) : International Team!

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Where Contribute?
Wireshark on Social network

on Facebook

https://facebook.com/groups/wireshark/

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Wireshark on Social network

• Facebook

Claudio Zenga  
October 9 at 2:19pm · Naples, Italy

Hello guys... anyone can say me why my Wireshark... don't find any TCP packets?

Prashant Roy Ydv  
July 9

how I capture data of WiFi I hacked the password of WiFi
Wireshark on Social network

on Twitter

@wiresharknews

https://twitter.com/wiresharknews
Not in...

No Wireshark snapchat

or Wireshark Instagram
• Questions and Answers about Wireshark

https://ask.wireshark.org

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• a (old) Wiki but there is always some good information

• Specialty the SampleCaptures page
  And Gerrit info

https://wiki.wireshark.org
• Wireshark-users
  • no very active (prefer Ask)
• wireshark-dev
  • About wireshark code
• wireshark-commits
  • Mail of each commit
• wireshark-bugs
  • Mail of each bugs
Transifex

For manage translations

28 langues de projet 5 sans traducteurs ✅ demandé

Chinese (China) (zh-CN) 100% prêt à être utilisée

German (de) 100% prêt à être utilisée

Italian (it) 100% prêt à être utilisée

Polish (pl) 100% prêt à être utilisée

Japanese (Japan) (ja_JP) 96%256 chaines à traduire

French (fr) 93%562 chaines à traduire

Ukrainian (uk) 14%7,131 chaines à traduire

Spanish (es) 7%7,734 chaines à traduire

https://www.transifex.com/wireshark

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HOW TO Contribute?
Bugs (and feature)

- Use bugzilla

https://bugs.wireshark.org
Bug TODO list

- **for regression/bug**
  - How to reproduce the issue
  - a link to specification (it will be helpful often…)
  - Please attach a pcap (and **NOT** a screenshot)

- **for feature request (like new dissector)**
  - a link to specification (we are not magician)
  - a (or multiple) pcap(s) (and **NOT** a screenshot)
Make build environnement

- **Linux (more easy):**
  - can use debian-setup script (for debian family distro)
  - can use rpm_for_devel (for rpm family distro)

- **macOS**
  - can use macosx-setup script
  - can use macos-setup-brew script (use HomeBrew)

- **Windows**
  - Read documentation:
    - [https://www.wireshark.org/docs/wsdg_html_chunked/ChSetupWin32.html](https://www.wireshark.org/docs/wsdg_html_chunked/ChSetupWin32.html)
Official git mirror

But don’t Accept Pull Request (PR)

https://github.com/wireshark/wireshark

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Build system from Github
- Include a .travis.yml config file in Wireshark repo
- with already 5 jobs
  - clang/gcc/autotools/cmake and osx

<table>
<thead>
<tr>
<th>Build Jobs</th>
<th>Compiler: clang C++</th>
<th>BUILD_CMAKE=</th>
</tr>
</thead>
<tbody>
<tr>
<td>#183.1</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>#183.2</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>#183.3</td>
<td></td>
<td>no</td>
</tr>
<tr>
<td>#183.4</td>
<td></td>
<td>yes</td>
</tr>
<tr>
<td>#183.5</td>
<td></td>
<td>yes</td>
</tr>
</tbody>
</table>
• the Official Git repo: use for code review

https://code.wireshark.org/review/
Push your change!

- Need some git skill
- git clone https://code.wireshark.org/review/wireshark
- make your change
- git commit
- git review –R (or git push origin HEAD:refs/for/master/ )
Help for Gerrit

• There is page on Wiki can help you

https://wiki.wireshark.org/Development/Workflow
https://wiki.wireshark.org/Development/SubmittingPatches
https://wiki.wireshark.org/Development/SubmittingPatches/GitForWindows
Buildbot

- **(Continuous) Automatic build system**
  - Windows
  - Linux (gcc/clang/clang-analyzer/fuzzing…)
  - macOS
  - For master, master-2.2 and master-2.0 branch

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**Waterfall**

<table>
<thead>
<tr>
<th>Platform</th>
<th>Last Build</th>
<th>Current Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCC 10.6 x64</td>
<td>failed check-abi</td>
<td>building ETA in ~ 23 mins at 19:15</td>
</tr>
<tr>
<td>Ubuntu 16.04 x64</td>
<td>build successful</td>
<td>idle</td>
</tr>
<tr>
<td>Visual Studio Code Analysis</td>
<td>build successful</td>
<td>idle</td>
</tr>
<tr>
<td>Windows 8.1 x64</td>
<td>build successful</td>
<td>building &lt; 1 min</td>
</tr>
<tr>
<td>Windows Server 2012 R2 x64</td>
<td>build successful</td>
<td>idle</td>
</tr>
</tbody>
</table>

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Nighty build

- you can get « automated build »
- for Windows and macOS

https://www.wireshark.org/download/automated/
• Automatic builds and tests before pushing to master

• For example:
  • Build with GCC/clang (for Windows dev)
  • Build with extra flag
  • Build with MSVC (for Linux dev)
  • Sanity checks: checkapi, pre-commit, license
  • ….
ROADMAP
It is you make the ROADMAP!
Only need to contribute! (patch, bug, feature...)

But already 17 new dissectors (and a lot of bug fix!
 Already more 1100 commits from 2.2)
Questions?
Thanks!