GNU Radio
Project Update

Ben Hilburn

Unique Visitors

Total Unique Visitors	Maximum Unique Visitors	Minimum Unique Visitors
Last Month	Last Month	Last Month
69,311	4,898	3,112

Participation in Software Coding Programs

- Google Summer of Code

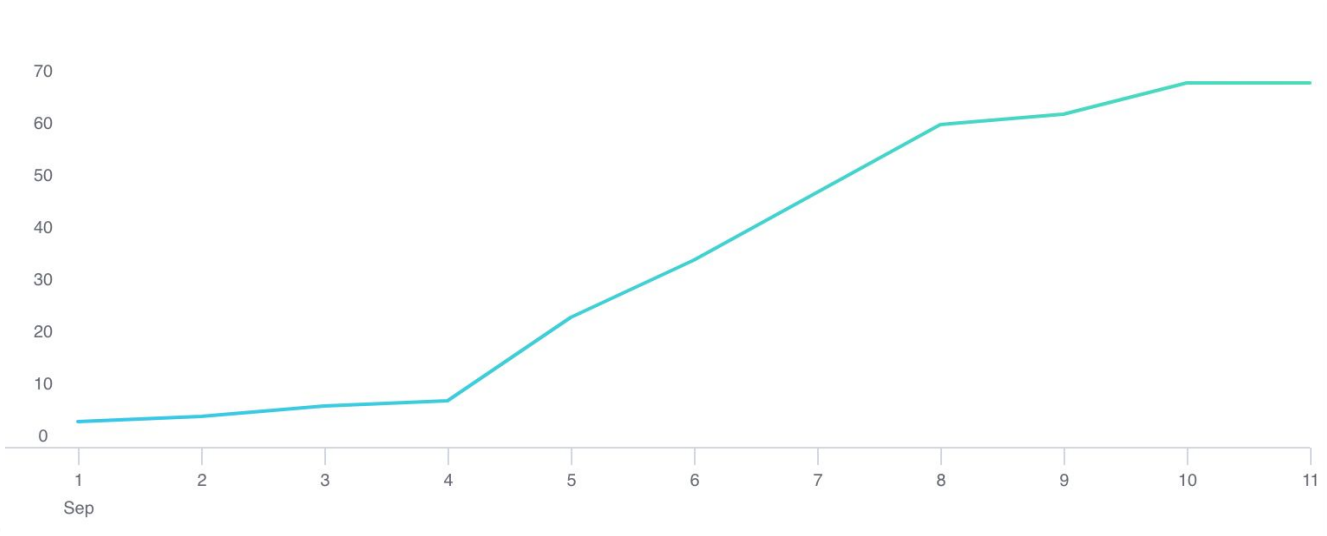
- Summer of Code in Space

esa

European Space Agency

GRCon17

- Another year of growth!
- Another year of everyone waiting until the last minute to buy their tickets!
- Discussion about next year needs to start soon!



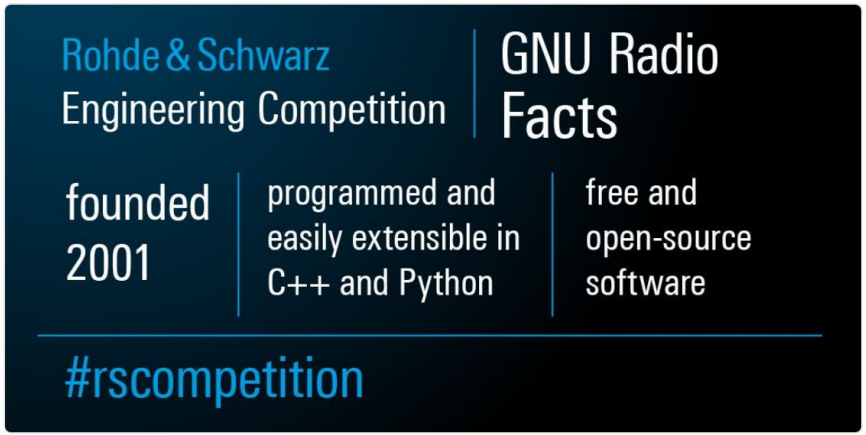
Rohde & Schwarz Engineering Competition

Rohde&SchwarzCareers
@RSCareers

Follow

Bei der #rscompetition programmiert ihr auf Basis von @gnuradio! Jetzt anmelden und bis zu 3000USD gewinnen: bit.ly/2mJs2zw

Translate from German



11:28 PM - 26 Apr 2017

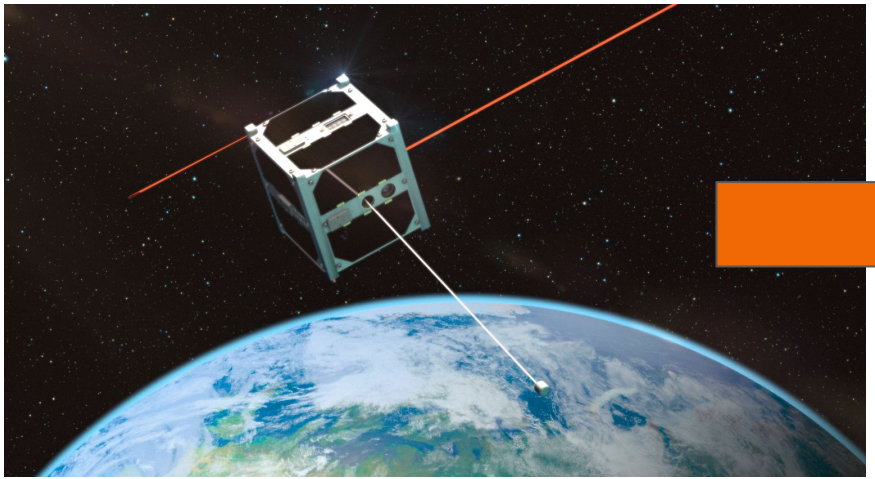
Rohde & Schwarz Engineering Competition

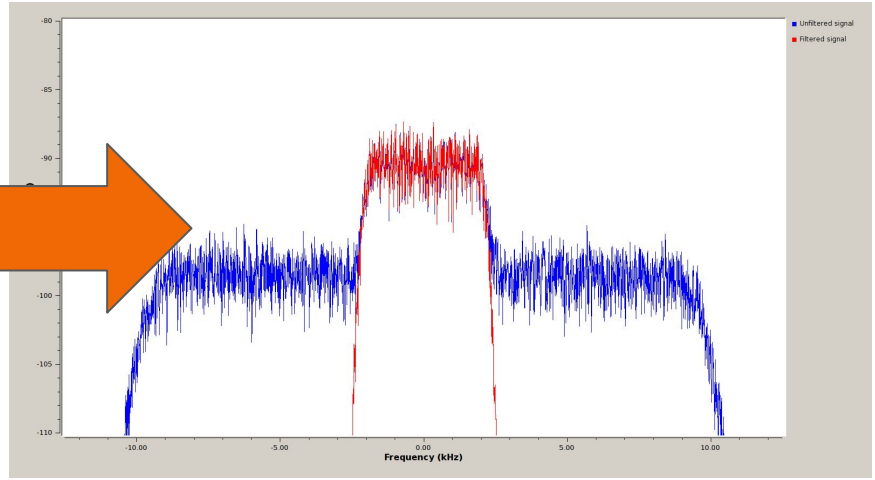
Changes in the Developer Community

- Tons of GNU Radio development happening

- Most of it is in Out-of-Tree Modules

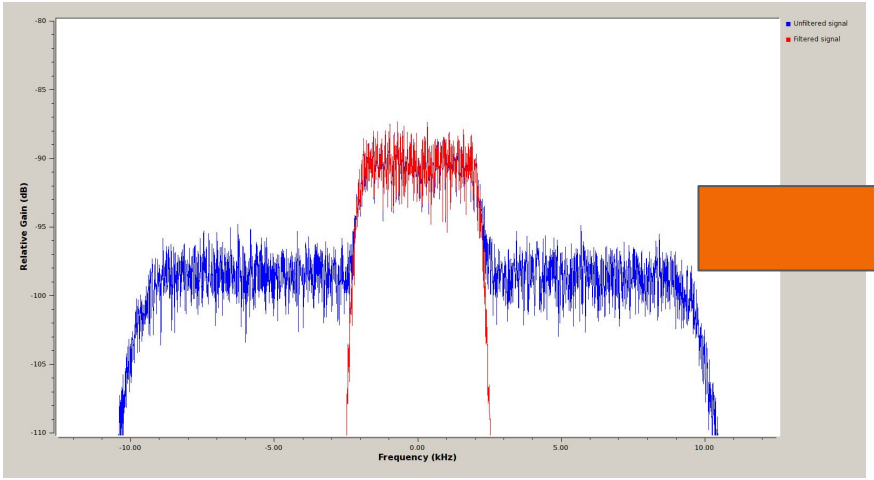
Reverse Engineering Outernet

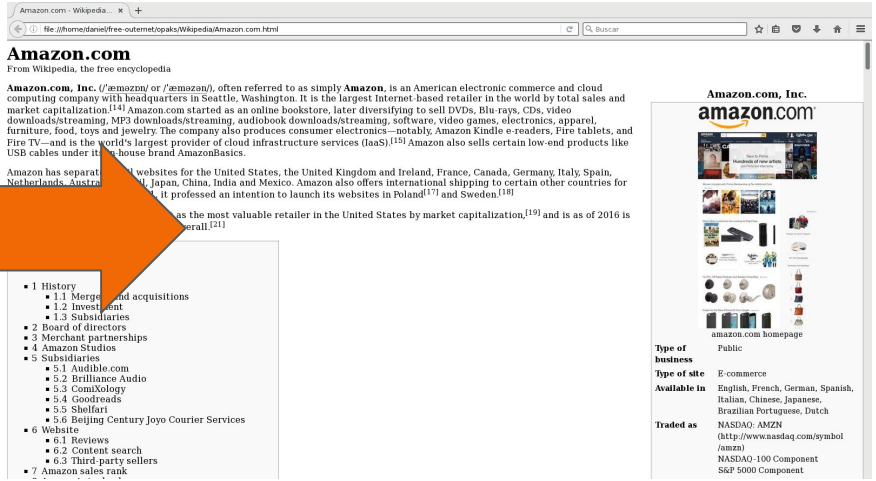




Blog Post Walkthrough: http://gnuradio.org/blog/reverse-engineering-outernet/

Reverse Engineering Outernet





Blog Post Walkthrough: http://gnuradio.org/blog/reverse-engineering-outernet/

GNURadio
THE FREE & OPEN SOFTWARE RADIO ECOSYSTEM

Radio Astronomy

Arecibo

Jicamarca

Tromsø

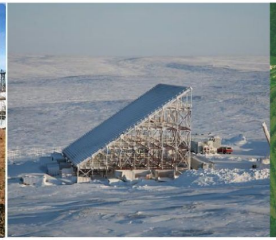
Millstone Hill

Kharkiv

Svalbard

Poker Flat

Irkutsk



Resolute Bay

MU

Images from Juha Vierinen's presentation:
Geophysical Remote Sensing with GNU Radio

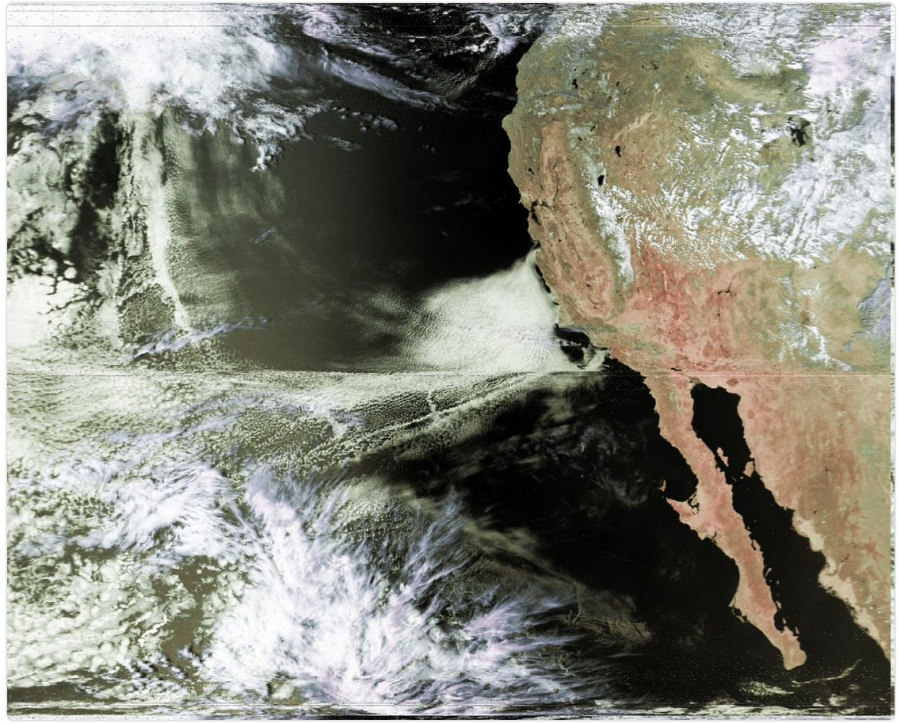
Radio Astronomy

- Juha Vierinen's work at Haystack Observatory
  - Presented at GRCon13: slides, video
- National Radio Astronomy Observatory
  - Presented at Cyberspectrum 10: Using GNU Radio for Astronomy Research, Public Outreach
- Open Source Radio Telescope Project (OSRT)
  - Building a community for open source radio telescopes
- Canadian Centre for Experimental Radio Astronomy (CCERA)
  - Goal: Make something like this accessible to everyone

dev
@devnulling

Following

Starting to get good results from the tracking dish, not bad for a 39* pass NOAA-19 HRPT #sdr #gnuradio i.imgur.com/Cfw9lpH.jpg



GNURadio
THE FREE & OPEN SOFTWARE RADIO ECOSYSTEM

wat

For sale on Amazon, a hacking gadget that is a car thief's dream... and our team using it took just two minutes to break into this £100,000 Range Rover

wat


HackRF One
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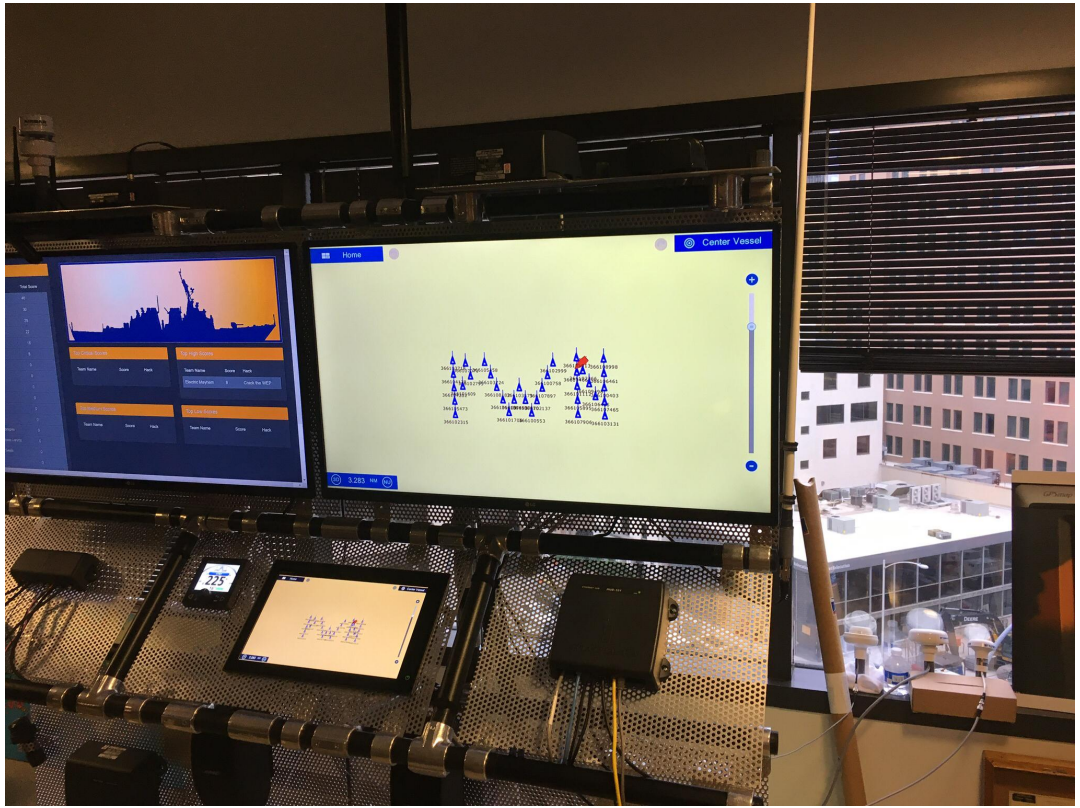
GNU Radio Tutorials at Shmoocon

GNU Radio
THE FREE & OPEN SOFTWARE RADIO ECOSYSTEM

HACKtheMACHINE

HACKtheMACHINE Winners



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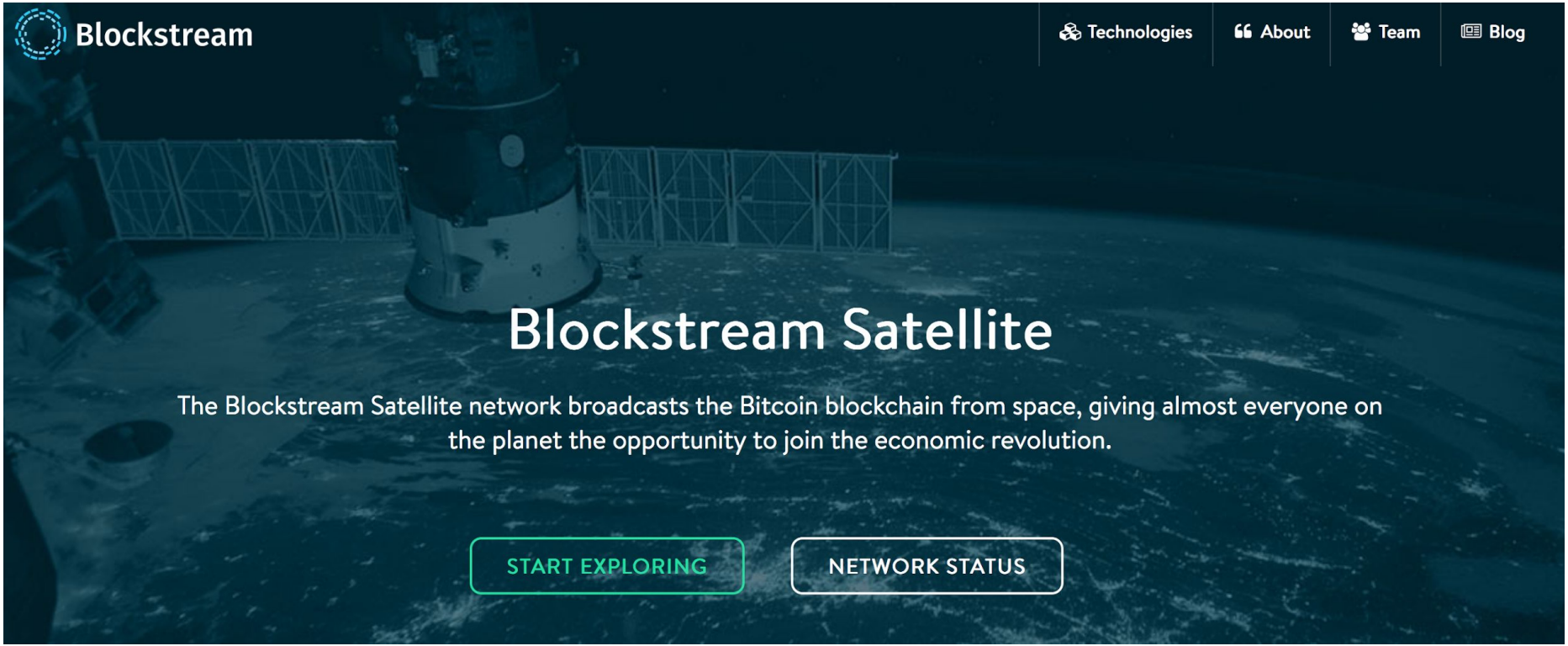

Blockstream
Technologies
About
Team
Blog
Blockstream Satellite
The Blockstream Satellite network broadcasts the Bitcoin blockchain from space, giving almost everyone on the planet the opportunity to join the economic revolution.
START EXPLORING
NETWORK STATUS

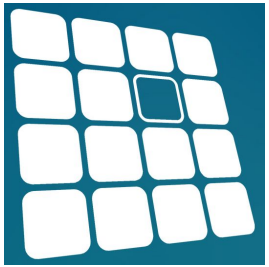
Changes in the Developer Community

- Upside: High levels of community activity, exciting developments.

- Downside: GNU Radio's core suffering from less attention.

Broadening of the Community

- Most people use a variety of tools
- Starting to see this reflected more in the active participants



Broadening of the Community

- Most people use a variety of tools
- Starting to see this reflected more in the active participants
- GNU Radio is used:
  - Stand-alone
  - Part of a workflow
  - Paired with other tools
  - As a dependency for other tool

- GNU Radio is often the common denominator with other tools & communities

Our Major Challenges

- How do we support sustainable development for GNU Radio's core?
- How do we improve our code quality and stability?
- How do we lower the barrier-to-entry and make GNU Radio more accessible?

Parting Thought

GNU Radio is primed to really take-off if it gets the support it needs.

Goals:

1. Improve the accessibility & usability of software radio.
2. Provide a tool that can be used for the entire design cycle: simulation, in-the-loop prototyping, and deployment.
3. Make GNU Radio flowgraphs the standard model for software radio design.