BOINC – not only calculations

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15.02.2014
• Introduction to BOINC
• Radioactive@Home
Many people participated in the SETI@Home project, which was launched almost 15 years ago - ie 17 May 1999. At that time providing ones computing power to the scientists from big American research center was for a common user virtual adventure. Research conducted on shared computers involved (and still do) rather "popular" subject, searching in the radio waves, signals that may come from foreign civilization. The project has gained popularity and in this respect a comparison to todays "Facebook " can be quite accurate. One should remember though that this are completely different systems and SETI@Home began operations in 1999, when Internet in Poland was infancy. However, SETI@home and BOINC turned out to be a great initiative, which has already nearly two decades and unites people around the distributed computing.
BOINC project - lines of code (data from 5 February 2014). Source: www.ohloh.net.

BOINC project - commits per month (data from 5 February 2014). Source: www.ohloh.net.
The Berkeley Open Infrastructure for Network Computing (BOINC) is an open source middleware system for volunteer and grid computing. It was originally developed to support the SETI@home project before it became useful as a platform for other distributed applications in areas as diverse as mathematics, medicine, molecular biology, climatology, and astrophysics. The intent of BOINC is to make it possible for researchers to tap into the enormous processing power of personal computers around the world.

BOINC has been developed by a team based at the Space Sciences Laboratory (SSL) at the University of California, Berkeley led by David Anderson, who also leads SETI@home. As a high performance distributed computing platform, BOINC has about 596,224 active computers (hosts) worldwide processing on average 9.2 petaFLOPS as of March 2013.
SETI@home Multi-Beam

Searching for Gaussians
Doppler drift rate: -12389 Hz/sec
New Gaussian: power 0.97, fit 0.851, score -13.025

Data info
From: 8 hr 56' 36" RA, +42 deg 8' 15" Dec
Recorded on: Mon Feb 25 02:30:150 2007
Recorded at: Arecibo 1.4GHz Array, Beam 4, PUL 1
Base frequency: 1419.3004688 GHz

User info
Overall: 1.7446% done
CPU time: 44 min 49.69 sec

SETI@Home
The Search for Extraterrestrial Intelligence

SETI@Home screensaver
BOINC Manager (simplified view).
Source: wcg.wikia.com
<table>
<thead>
<tr>
<th>Project</th>
<th>Application</th>
<th>Name</th>
<th>Elapsed Time</th>
<th>CPU %</th>
<th>v Progress</th>
<th>Time Left</th>
<th>Deadline</th>
<th>Status</th>
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<td>6.08 setiathome_enhanced (gpu)</td>
<td>31 &lt;Tasks&gt;</td>
<td>19:09:22 (01:05:15)</td>
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<td>01:04:21</td>
<td>84.378</td>
<td>01:11:46</td>
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**BOINC Manager (advanced view)**

*Source: boinc.berkeley.edu*
Radioactive@Home

On March 11th 2011 the Fukushima 1 atomic powerplant suffered major damage due to earthquake and tsunami that followed. Major concern about safety of atomic energetics among BOINC@Poland users caused the beginning of new project for BOINC platform Radioactive@home, which was started on April 16th 2011. Developing detector prototype for gamma radiation lasted a couple of weeks and were finished by the test in ghost town of Prypiat where the Chernobyl disaster took place. Today every user that has a computer, detector and internet access can join the project that creates a virtual map of radiation enveloping the entire world.
One version of the gamma-ray detector system used in Radioactive@Home
Radiation detector in the housing.
Map of radiation sensors located in World (color version).
Map of radiation sensors located in Europe (color version).
Map of radiation sensors located in Europe (grayscale version).
Sample statistics of radiation from one of the locations.
Fundacja BOINC Polska

Opublikowano: poniedziałek, 02, lipiec 2012 14:04 | | Odsłony: 525


Fundacja została założona przez członków drużyny BOINC@Poland i jednym z jej celów statutowych jest opieka nad projektami przetwarzania rozproszonych w Polsce.

Jako, że zespół tworzący projekt Radioactive@Home jest całkowicie złożony z osób zaangażowanych m.in. w proces tworzenia fundacji, z dniem dzisiejszym przechodzimy pod jej opiekę.

Przetwornica DC/DC 400v z użyciem dławika.

Opublikowano: czwartek, 29, marzec 2012 19:01 | | Odsłony: 4024

Ponieważ dostępność, oraz wykonanie transformatora użytego w aktualnym bloku przetwornicy może sprawić problemy, postanowili zaprojektować kompatybilną przetwornicę przy użyciu dławika.

Nowy projekt czujnika
Thank you for your attention!

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