

# GSoC 2015 summary + GSoC mentor summit trip report

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# GSoC 2015 summary

GSoC = remote student summer projects on open source software funded by Google

PH/SFT applied as mentoring organization for the 5th time

Obtained and mentored 14 projects in the area of

- ROOT (R-interface, T-Formula, Visualization, IO, PyROOT)
- Simulation (Differential equation solvers in Geant; Sixtrack)
- Libraries (GPU support of Vc vectorization library)
- HTTP/2 support in CERNVM-FS
- Tool development ( static analysis (SAS), binary code browser )

# GSoC 2015 summary

projects successfully completed

- students gave final project presentations on 1.9.2015
  - <https://indico.cern.ch/event/442270>
  
- summary article in current PH newsletter
  - <http://ph-news.web.cern.ch/content/sft-participates-fifth-year-googles-summer-code-programme>

# GSoC mentor summit

2 day reunion at Google headquarters ( 7.11. + 8.11.2015 )

inviting representatives/delegates of participating organizations

- 137 organizations (estimated ~200 participants)
  - from big: Apache Foundation, Python Foundation, KDE, GNOME, ...
  - to small: subsurface (diving software?)
- <https://www.google-melange.com/gsoc/projects/list/google/gsoc2015>

“Our mission for the weekend: Make the program even better, have fun and make new friends”



# GSoC mentor summit (2)

- Program self organized (“unconference”)
- Main topics
  - discussions about the program
  - feedback to the organizers
  - exchange of experience concerning all aspects of student handling
    - how to select; how to motivate; how to bind, how not to lose ...
  - Google tech talks
    - BigQuery; Project Tango; Google Kubernetes; ...
  - spontaneous presentations and hacking sessions (very parallel)

The image shows a calendar grid for Sunday, 2015. The grid is divided into time slots, with a blue header for the day. The events and sticky notes are as follows:

Time Slot	Event / Note
10:00 - 11:00	18.05.2015 Mentor Summit Sticky note: "Mentor Summit - 18.05.2015 - 10:00 - 11:00"
11:00 - 12:00	Sticky note: "Mentor Summit - 18.05.2015 - 11:00 - 12:00"
12:00 - 13:00	Sticky note: "Mentor Summit - 18.05.2015 - 12:00 - 13:00"
13:00 - 14:00	Sticky note: "Mentor Summit - 18.05.2015 - 13:00 - 14:00"
14:00 - 15:00	Sticky note: "Mentor Summit - 18.05.2015 - 14:00 - 15:00"
15:00 - 16:00	Sticky note: "Mentor Summit - 18.05.2015 - 15:00 - 16:00"
16:00 - 17:00	Sticky note: "Mentor Summit - 18.05.2015 - 16:00 - 17:00"
17:00 - 18:00	Sticky note: "Mentor Summit - 18.05.2015 - 17:00 - 18:00"
18:00 - 19:00	Sticky note: "Mentor Summit - 18.05.2015 - 18:00 - 19:00"
19:00 - 20:00	Sticky note: "Mentor Summit - 18.05.2015 - 19:00 - 20:00"
20:00 - 21:00	Sticky note: "Mentor Summit - 18.05.2015 - 20:00 - 21:00"
21:00 - 22:00	Sticky note: "Mentor Summit - 18.05.2015 - 21:00 - 22:00"
22:00 - 23:00	Sticky note: "Mentor Summit - 18.05.2015 - 22:00 - 23:00"
23:00 - 24:00	Sticky note: "Mentor Summit - 18.05.2015 - 23:00 - 24:00"

Additional notes on the calendar:

- 12:00 - 13:00: lunch in Cornerstone Cafe
- 14:00 - 15:00: closing session in Comic Con

# Personal highlights

- Summit is a fantastic occasion to meet many new people and to learn about interesting projects
- Particular interesting things (personal selection)
  - Saros project
    - <http://www.saros-project.org/>
    - real time collaborative editing and coding in Eclipse (xmpp based)
    - will definitely try this out
  - Sage online math platform:
    - collaborative editing / online learning / interactive notebooks
    - these guys already have a basic ROOT integration
    - could provide some interesting ideas for “ROOT as a service”
    - <https://cloud.sagemath.com>
  - discussions about HPX distributed computing; SIMD libraries; C++ IO with HPC developers from the Ste||ar group

# Main message on future GSoC sessions

- GSoC 2016 will take place
  - no details about number of projects supported
- no change in program dates (which are in line with US university schedule)
  - some European projects asked for more flexible scheme ( start working within time window and finish it within a time window )
- new web portal to handle student applications process
  - new design and improved functionality
  - improved conflict resolution for student allocation process
- selection of participating organization might be moved earlier
  - to allow for better student application process

# Impressions from the Google visitor centre



CERN scientists searching for the God particle [Higgs Boson] took place on Feb 12, 2012. It was hosted from inside the cavern housing the Large Hadron Collider, the largest and highest-energy particle earth's surface in Cessy, France. On July 4, 2012, Dr. Joe Incandella, spokesman for CMS (in the Hangout on the right), announced that they had discovered a particle consistent with the Higgs Boson.



# GSoC 2016

- GSoC 2016 is announced
- Organization selection will be in February 2016
- We should start now thinking of possible topics ...
- In which form do we want to apply: PH/SFT? CERN? ...