

FPC Hackathon 2013

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June 8, 2013

Abstract

Free Pascal is 20 years old and still alive and kicking. What better way to commemorate this than a hackathon ? A small recap

Programmers don't need reasons to organize hackathons. They are just fun. However, this year, there were 2 good reasons to have one:

1. In June of 2013, Free Pascal will exist 20 years: a venerable age for an Open Source project. What better way to celebrate the 20th anniversary than a Hackathon with many core developers present ?
2. The German company Viprinet and its CEO Simon Kissel were looking to sponsor some specific FPC development, since they would like to use FPC in their TCP/IP routing solutions.

1 The event

So, the useful and the pleasant were combined and a hackathon was organised in the vicinity of Bingen, where the headquarters of Viprinet are located: a new hotel in the neighbouring town of Gensingen was the location of the FPC hackathon 2013 from the 29th of May till June third. Apart from a huge male peacock infestation problem at the mill next door, it was a very nice location, and the event will surely be remembered by visitors of the hotel and joining restaurant. Memorable quotes from passersby include "Look at those poor people, still at work so late in the evening" and "I think they are pirates".

2 The result

So, 11 people gathered together in peacock central and after being awakened by the world's most effective wake-up service (a couple of male peacocks, what else?), they worked intensively till late at night on Free Pascal, and the hackathon proved productive. Seated along a horseshoe-shaped table, lots of work was accomplished by the FPC team:

Florian Klämpfl Founder of the Free Pascal project, worked on SSA support (Static Single Assignment), a technique to improve the speed of generated code. Additionally he provided support for everyone that needed help.

Jonas Maebe Had a second stab at supporting LLVM as a back-end, implementing the necessary high-level constructs for this back-end to become a reality.

Sven Barth Started Dynamically loadable Packages support: A much-asked feature in the Lazarus community. He managed to get the compile-time part working experimentally on i386-linux.

Marco Van De Voort Started work on the Unicode RTL on Windows and FreeBSD: All low-level file access was converted to support unicode, the compiler was able to recompile itself using a Unicode version of these routines. This paves the way to a Delphi XE compatible RTL, while maintaining a Delphi 7 and backwards-compatible RTL at the same time.

Joost Van der Sluis Worked on the packaging system fpmake/fppkg, and finished implementing the attributes (a part of extended RTTI) support.

Nikolay Nikolov Steadily improved the recently introduced 16-bit 8086 support of Free Pascal: Some of the basic RTL units were completed, as well as some of the demos: A game of tetris running on a HP200LX and a TSR program (Terminate and Stay Resident) saw the day of light, that (bubble) sorted the letters on the screen while you work.

Jeppe Johansen Made compiler improvements for the ARM support.

Benjamin Rosseaux Acted as a stimulant for all compiler people trying to improve the compiler speed by showing the amazing speeds that can be achieved in Pascal Programs (Quake 3 in Pascal, anyone?) and by hacking on heathen alternative approaches to speed up things.

Karoly Balogh (Nicknamed Charlie) improved the compiler and RTL's MorphOS support.

Nico Erfurth As an employee of Viprinet helped on improving ARM code generation and general event organisation. The Erfurth residence clearly took these organisational responsibilities very seriously, as even Nico's girlfriend got involved by baking a delicious FPC birthday cake - to the enjoyment of all, because the so-called FPCake was utterly destroyed and completely eaten by the participants. But not before the picture in figure 1 on page 3 was taken !

Yours truly Worked with Marco on the Linux start of Unicode RTL, and worked on some SQLDB improvements, notably providing a more lightweight way to execute queries.

All members of the team were enthusiast participants in the daily rounds of peacock-bashing: the cries of the peacocks were audible in the conference room – almost as if the peacocks participated in the hackathon. Employers seeking to improve productiveness and increase team spirit should have a couple of peacocks, they're very effective. Every day, Simon Kissel, the CEO of Viprinet dropped by to wish us good morning and to see that all went well.

3 The future

The hackathon has brought the next major release (likely to be dubbed 'Pestering Peacock') several steps closer; progress was made in several areas, but it is still too early to say when this next major release will take place. Many thanks go to Simon Kissel and Viprinet to make this event a possibility.

Figure 1: 20 years of FPC

