Bisoños Usuarios de GNU/Linux de Mallorca y Alrededores | Bergantells Usuaris de GNU/Linux de Mallorca i Afegitons

Ponència dels desenvolupadors de PyPy (7368 lectures)
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El grup de desenvolupadors de PyPy es troba a Mallorca fent un sprint i oferiran una ponència on explicaran els principis i objectius del seu projecte. L'acte serà el divendres 27 a les 15:30 a l'AulaLinux.

El projecte PyPy pretén crear una implementació de Python més ràpida i flexible. Amb aquesta idea en ment es reimplementa un intèrpret de Python en el mateix llenguatge de programació. Potser algun dia serà més ràpida que la implementació en C, qui sap...

Un *sprint* per la gent de PyPy[1] no és sols programar com a bojos: és un bon moment per donar a coneixer el seu projecte. Ricardo Galli[2] va conseguir que aquesta gent pogués[3] usar el laboratori conegut com AulaLinux per dur a terme les seves tasques de desenvolupament i organització. Abans de marxar ens volen oferir una conferència on s'explicaran els principis del projecte, en què està basat i perquè fan conses tan curioses com aquesta. La ponència començarà a les 15:30h, durarà casi una hora i després hi haurà torn de preguntes. La major part de la ponència serà en anglès.

Cartell anunciant l'acte.[4]

Aquest és el seu missatge sobre l'acte del divendres:

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27th th of January 2006/UIB

Title: PyPy and the Muenchhausen approach

Talkers: Carl Friedrich Bolz, Armin Rigo, Samuele Pedronis

Time: 45 minutes + questions
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Abstract:

The PyPy team is "sprinting" (one week programming workshop) at the UIB this week, working in the Aula GNU/Linux. The team has been invited by Ricardo Galli at the Computer Science departement. We present this talk as a good way to get to understand the novel language design aspects of the project as well as our contribution back to the UIB for graciously hosting PyPy.

We present our first self-contained Python virtual machine that uses parts of itself to translate itself to low level languages ("the Muenchhausen approach"). The PyPy approach could solve problems at language/interpreter-level that formerly required complex frameworkish solutions at user-level.

Description:

PyPy is a reimplementation of Python written in Python itself, flexible and easy to experiment with. Our long-term goals are to target a large variety of platforms, small and large, by adapting the compiler toolsuite we developed to produce custom Python versions. Platform, Memory and Threading models will become aspects of the translation process - as opposed to encoding low level details into a language implementation itself.

Basically, we think it's a good way to avoid writing n x m x o interpreters for n dynamic languages and m platforms with o crucial design decisions. In PyPy any one of these can be changed independently.

We are going to briefly describe the concepts of object spaces, abstract interpretation and translation aspects and how they led us to a first self-contained very compliant Python implementation in August 2005, completely independent from the current mainstream CPython implementation. We go through a translation example of a Python program with control-flow-graphs and the according translated lowlevel C and LLVM (Low level Virtual Machine) code.

We'll also try to relate PyPy's architectural concepts (known roughly for 2-3 years now) to similar upcoming concepts in e.g. pugs/Perl 6 development and we'll give an outlook on our starting Just-In-Time Compiler efforts and approaches.

Lastly, we intend to discuss experimental new language/interpreter-level solutions to long-standing problems such as distributed computing,persistence and security/sandboxing.

Lista de enlaces de este artículo:

1. http://codespeak.net/pypy/dist/pypy/doc/news.html
2. http://mnm.uib.es/gallir/
3. http://mnm.uib.es/gallir/posts/2005/12/27/560/
4. http://bulma.net/~paurullan/stuff/pypy.png

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