



IST FP6-004779

PYPY

**Researching a Highly Flexible and Modular Language Platform and Implementing it
by Leveraging the Open Source Python Language and Community**

STREP

IST Priority 2

D2.2 Introduce and Document a Release Scheme for PyPy Versions

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PyPy D02.2: Release Scheme

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Revision History

Date	Name	Reason of Change
2007-03-24	Holger Krekel	initial draft, exec summary
2007-03-25	Holger Krekel	Adding Releases, Structure and Tools, Abstract
2007-03-30	Holger Krekel	Finalizing Report, refinements after 1.0 Release
2007-03-30	Carl Friedrich Bolz	Publish Final version on the Web Page

Abstract

The code and documentation of the PyPy project has been continuously available through a public repository. Between 2004 and spring 2007 the PyPy team announced six releases publicly, each highlighting project progress and important milestones of research and development. We developed tools and processes to refine and automate the release process and introduced a scheme for keeping track of development, stable snapshot and release branches.

Purpose, Scope and Related Documents

This document explains the release process and scheme introduced for the PyPy project. We provide basic information on the organisation and structure behind the code release process and refer to other documentation for further details.

Related Documents:

- D02.1 Configuration and Maintenance of Development Tools and website [[D02.1](#)]
- D02.3 Automated Testing and Development support library [[D02.3](#)]
- D13.1 Integration and Configuration [[D13.1](#)]



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1 Executive Summary

The PyPy team from the start adopted the usage of a publicly accessible version control system [SUBVERSION]. This allowed interested parties to access consistent snapshots throughout the whole project duration and easily take part and follow development. The “revisions” were usually consistent in the sense that all automated tests passed. We developed tools to track this consistency and determine which revision has regressions. Ultimately, PyPy core developers as well as community and contributors were happy about this continuous public availability of the project’s work and results.

Nevertheless, it was important to settle and formally announce releases, making sure that we have appropriate documentation and a clear message towards people and other third parties following the project progress. Over the 28 months of EU project duration we made six such public releases, most of which reflected milestones within our ongoing research and engineering work.

During the EU project duration the model of having a mainline [dist](#) and derived [release](#) tags and branches proved sufficient. Experimental developments usually were merged with the mainline branch.

The release process was increasingly refined and automated over time so that today the effort to perform such a release lies mostly in considering and expanding our test sets, and updating and reviewing documentation. We have a scheme of release branches and tags in place that reflect our practise.

However, as the number of backends and PyPy features and options [D13.1] increases, it is not easily possible to ensure that [dist](#) is stable with respect to in an increasing set of test combinations. At the end of the EU project duration (March 2007) we are heading for having mainline development reside in a new [trunk](#) directory, and to copy stable tested snapshots to the [dist](#) branch, allowing contributors to follow and make use of PyPy development in an quick and consistent manner.

The responsibility of keeping conceptual integrity of the mainline development branch lies with a group of trusted contributors [TC].

2 PyPy Release Scheme and Tools

2.1 Development and Release Structure

PyPy code and development is publicly accessible through the [CODESPEAK] subversion version control system. The stable development and integration branch leaves at:

<http://codespeak.net/svn/pypy/dist/>

Release branches and tags are kept here:

<http://codespeak.net/svn/pypy/release/>

Before releases usually one or more release managers control the development branch, trigger and drive important integration, documentation and testing works. Several more branches exist and are kept in a “branch” subdirectory or at other places within the subversion file system.

2.2 Release tools

On top of our testing tools [D02.1], build and configuration tools [D13.1] the PyPy team has written scripts to support and automate technical release steps, in particular for packaging/uploading and for downloading/testing. Performing the actual release tagging operations is left to manual actions of the release managers.

Most of the tools relating to building and releasing PyPy can be found here:

<http://codespeak.net/svn/pypy/build/>

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2.3 Public Releases

Before a release, there is an increasing focus on reviewing the documentation entry points and to write release announcements transporting main messages of project development. We publicly released PyPy six times during the EU project duration, each time presenting new major features and highlights.

20th May 2005: [0.6] core Python interpreter.

28th August 2005: [0.7] first translated Python interpreter.

3rd November 2005: [0.8] Python with more Translation Aspects, Optimizations.

26th June 2006: [0.9] Stackless integration, Optimizations, Extension Compiler, framework GCs, Logic Programming

17th February 2007: [0.99] High Level Backends, Optimizations

27th March 2007: [1.0] Optimizations, JIT compiler generator, Transparent Proxies, AOP

2.4 py lib releases

The testing and support library for PyPy used a similar scheme then the one presented above, publicly releasing the 0.9.0 version in February 2007, and providing a stable *dist* branch which is also used by PyPy. Please see [D02.3] for more details.

References

- [D02.1] *Configuration and Maintenance of Development Tools and Website*, PyPy EU-Report, 2007
- [D02.3] *Automated Testing and Development support library*, PyPy EU-Report, 2007
- [D13.1] *Integration and Configuration*, PyPy EU-Report, 2007
- [0.6] 0.6.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.6.0.html>
- [0.6.1] 0.6.1 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.6.1.html>
- [0.7] 0.7.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.7.0.html>
- [0.8] 0.8.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.8.0.html>
- [0.9] 0.9.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.9.0.html>
- [0.99] 0.99.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-0.99.0.html>
- [1.0] 1.0 PyPy release announcement, <http://codespeak.net/pypy/dist/pypy/doc/release-1.0.0.html>
- [CODESPEAK] codespeak PyPy repository and development host, <http://codespeak.net>
- [TC] “caretakers” discussion results, <http://codespeak.net/pipermail/pypy-dev/2007q1/003577.html>
- [SUBVERSION] Versioned transactional file system: <http://subversion.tigris.org>