

IPython: a quick update

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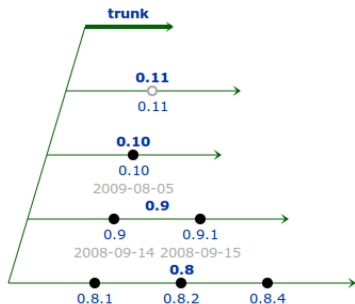
Cast of Characters

(those in **boldface** are here today)

- **Brian Granger** - Physics, Cal State San Luis Obispo
- **Gael Varoquaux** - Neurospin (Orsay, France)
- **Robert Kern** - Enthought
- **Stefan van der Walt** - Applied Math, U. Stellenbosch, South Africa
- **Ondrej Certik** - Physics, Czech Republic
- **Darren Dale** - Physics, Cornell
- Ville Vainio - CS, Tampere University of Technology, Finland
- Min Ragan-Kelley - UC Berkeley
- Barry Wark - Neuroscience, U. Washington.
- Jorgen Stenarson - Sweden
- Laurent Dufrechou - France
- Vivian De Smedt - Belgium
- Many more I'm forgetting...

Hitting our stride with Launchpad

IPython Timeline



trunk series *focus of development*

Bugs targeted: None

Blueprints targeted: None

The main branch of development for IPython. Stable releases are made from this branch, it is the equivalent of a trunk in a traditional SVN-style setting.

As of August 4 2009 (when version 0.10 was released), the trunk is undergoing significant changes and API stability is NOT guaranteed. This will result in a significantly refactored IPython, and will be released as 0.11 (and later) once ready.

So unless you are actively following our development and are aware of the potential compatibility issues, do not update regularly from trunk in your production environment. We will update this notice when the API stabilizes again.

Bzr has its problems, but DVCS still rocks

launchpad **IPython** Fernando Perez • Log Out

Overview Code Bugs Blueprints Translations Answers

Bazaar branches of IPython

[Register a branch](#)

68 branches owned by 17 people and 2 teams, 137 commits by 7 people in the last month

4 pending proposals, 0 unmerged proposals

You can browse the [source code](#) for the development focus branch or get a copy of the branch using the command:

```
bzr branch lp:ipython
```

There are [download files](#) available for IPython.

Branches with status: by most interesting

Name	Status	Last Modified	Last Commit
lp:ipython Series: trunk, 0.11	★ Mature	41 max commits 90 days - Last commit 2009-08-13	1210. Fernando's fix to %paste.
lp:ipython/0.10 Series: 0.10	Mature	2 weeks ago	1208. Final rev number and tag update for 0...
lp:~ipython-dev/ipython/ipython-app	Development	8 hours 50 minutes ago	1256. Removed shell.py entirely and made th...
lp:~ipython-dev/ipython/config-refactor	Development	2 days ago	1251. The IPython dir is now created by App...
lp:~ipython-dev/ipython/inputhook	Development	5 days ago	1233. General work on inputhook and the doc...
lp:~ipython-dev/ipython/set_trace	Development	3 weeks ago	1177. Imports the Shell variable, which is ...
lp:~ipython-dev/ipython/ipythondistarray	Development	7 weeks ago	38. First draft of DistArrayProxy for a n...
lp:~villemvalino/ipython/trunk-dev	Development	10 weeks ago	1163. merge from trunk
lp:~pivanov/ipython/devel	Development	14 weeks ago	1175. Improved Vim integration (running a v...
lp:~pierre-raybaut/ipython/qt_frontend	Development	17 weeks ago	<i>This branch has not been pushed to yet.</i>
lp:~jorqen-stenarson/ipython/ipython-	Development	18 weeks ago	1168. Fix for #315392. Crash on win32 when

Brian Granger: lots of hard work in

- **Module reorganization**: a rational package layout.
- **Configuration system** rethought (this sounds trivial. **It isn't**).
Initialize, validate, ...
- IPython broken into **components**.
- Many things we've wanted to do for a long time will be now **much easier**.
- Lots of **cruft removed**: **some API breakages**.

Thanks to NIPY project for funding support!

Traitlets!

```
from IPython.utils.traitslets import HasTraitlets, Int
class A(HasTraitlets):
    a = Int
    def _a_changed(self, name, new):
        print name, 'has changed to:', new
...
In [11]: a = A()
In [12]: a.a
Out[12]: 0
In [13]: a.a = 100
a has changed to: 100
```

What, why???

- Pure Python (Jython, IronPython)
- We use parts of Enthought's Traits code
- As compatible with Traits as possible

A clean way to do all these, and more...

The image displays a screenshot of a multi-windowed development environment, likely on a Linux system, illustrating a workflow for running IPython and managing code.

IPythonX Window: Shows a Python session with a `ZeroDivisionError` (integer division or modulo by zero). The user has entered `import numpy as np` and a list of `np.complex` related attributes is shown, including `np.complex128`, `np.complex64`, and `np.complexfloating`.

emacs-maqroll Window: Shows a Python file named `component.py` containing a class definition: `class Component(HasTraits):`.

WxIPython Window: Shows an IPython Shell window with a directory listing of `ipython/repo` files, including `ipython/misc`, `ipython/repo`, `ipython/parallel`, `ipython/simpleclass.py`, `ipython/svn`, `ipython/nb`, `ipython/sf.net`, `ipython/simple`, and `ipython/test`. Below the listing, a `ZeroDivisionError` is shown, and the user has entered `import numpy as np`.

Terminal Window: Shows the execution of `from IPython.utils import traitlets`, `from IPython.utils.traitlets import HasTraits`, and the definition of a class `A(HasTraits):` with attributes `a = Int`, `b = Float`, and a method `def _a_changed(self, new): print 'ha'`.

The system tray at the bottom indicates the application is running on a Linux system with various icons and the time 01:30.

If you use IPython as a library...

- Enthought
- Cyrano (STScI)
- Others...

Talk to us!

We'll be here for the sprints...