IPython: a quick update

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Caltech
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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
- Jorgen Stenarson - Sweden
- Laurent Dufrechou - France
- Vivian De Smedt - Belgium
- Many more I’m forgetting...
**IPython Timeline**

![Timeline Diagram]

**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.
Bazaar branches of IPython

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:

bzc branch lp:ipython

There are download files available for IPython.

<table>
<thead>
<tr>
<th>Name</th>
<th>Status</th>
<th>Last Modified</th>
<th>Last Commit</th>
</tr>
</thead>
<tbody>
<tr>
<td>lp:ipython</td>
<td>Mature</td>
<td>1210. Fernando's fix to %paste.</td>
<td></td>
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<tr>
<td>Series: trunk, 0.11</td>
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<tr>
<td>lp:ipython/0.10</td>
<td>Mature</td>
<td>1208. Final rev number and tag update for 0...</td>
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<tr>
<td>Series: 0.10</td>
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<tr>
<td>lp:~ipython-dev/ipython/python-app</td>
<td>Development</td>
<td>1256. Removed shell.py entirely and made th...</td>
<td></td>
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<tr>
<td>lp:~ipython-dev/ipython/config-refactor</td>
<td>Development</td>
<td>1251. The IPython dir is now created by App...</td>
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<tr>
<td>lp:~ipython-dev/ipython/inputhook</td>
<td>Development</td>
<td>1233. General work on inputhook and the doc...</td>
<td></td>
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<tr>
<td>lp:~ipython-dev/ipython/set_trace</td>
<td>Development</td>
<td>1177. Imports the Shell variable, which is ...</td>
<td></td>
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<tr>
<td>lp:~ipython-dev/ipython/ipythonclarray</td>
<td>Development</td>
<td>38. First draft of DistArrayProxy for a n...</td>
<td></td>
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<tr>
<td>lp:~villemvainio/ipython/trunk-dev</td>
<td>Development</td>
<td>1163. merge from trunk</td>
<td></td>
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<tr>
<td>lp:~pivanov/ipython/devel</td>
<td>Development</td>
<td>1175. Improved Vim integration (running a v...</td>
<td></td>
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<tr>
<td>lp:~pierre-raybaud/ipython/qt_frontend</td>
<td>Development</td>
<td>This branch has not been pushed to yet.</td>
<td></td>
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<tr>
<td>lp:~lorgen-stenarson/ipython/ipython-</td>
<td>Development</td>
<td>1168. Fix for #315392. Crash on win32 when</td>
<td></td>
</tr>
<tr>
<td>18 weeks ago</td>
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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!

```python
from IPython.utils.traitlets 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...
If you use IPython as a library...

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

**Talk to us!**

We’ll be here for the sprints...