

Interactive iControl with bigsuds



Jason Rahm, 2013-15-01

A couple months back we released a new iControl library for python called bigsuds. The [introductory article for bigsuds](#) covered some differences/enhancements in syntax between it and pycontrol versions one and two. Last week, I received an update to the bigsuds library (thanks Paul and Garron!) that includes some handy interactive and debug assistance for the ipython environment. This article will walk you through installing ipython, updating bigsuds, and checking out the new features.

Installing iPython

Grab a zip (or clone with git) of the [ipython source from github](#), then install.

```
unzip ipython-master.zip
cd ipython-master/ipython-master
python setup.py install
```

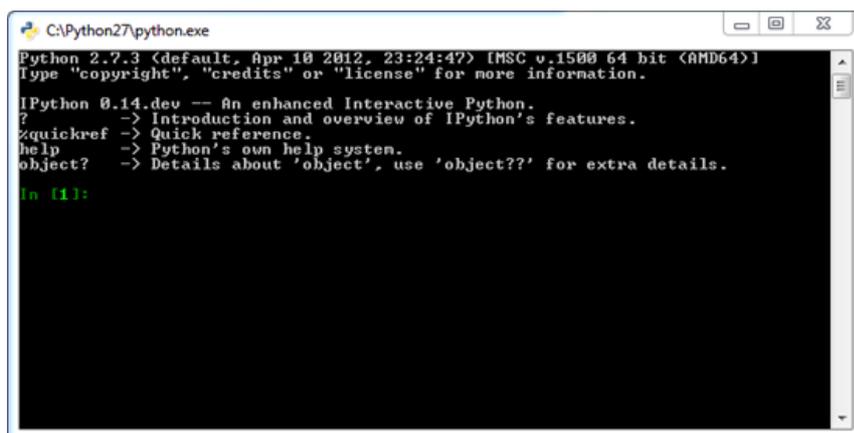
Installing bigsuds

Grab a copy of the [bigsuds update](#), then install.

```
tar xvfz bigsuds-1.0.tar.gz
cd dist/bigsuds-1.0.1
python setup.py install
```

IPython Interactive Shell

Now that the tools are installed, I can launch the ipython environment from cli or by clicking on the ipython.py icon in my file system.

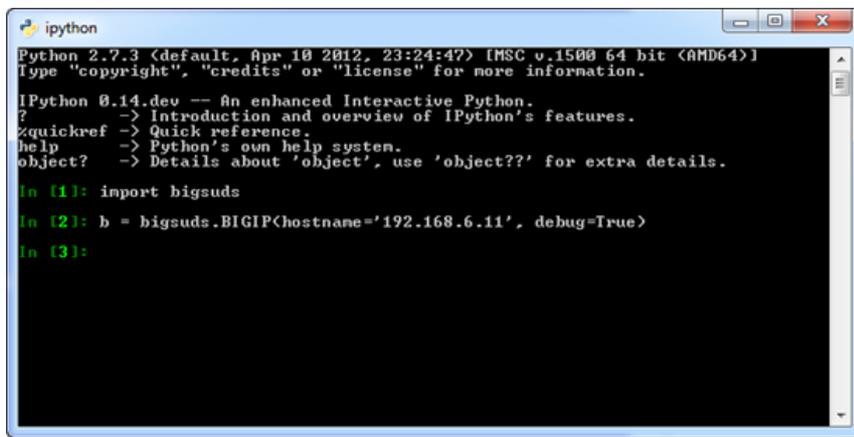


```
C:\Python27\python.exe
Python 2.7.3 (default, Apr 10 2012, 23:24:47) [MSC v.1500 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 0.14.dev -- An enhanced Interactive Python.
? -> Introduction and overview of IPython's features.
quickref -> Quick reference.
help -> Python's own help system.
object? -> Details about 'object', use 'object??' for extra details.

In [1]:
```

Now, I can instantiate the BIG-IP, but instead of the default configuration, I'll add a debug mode as shown below

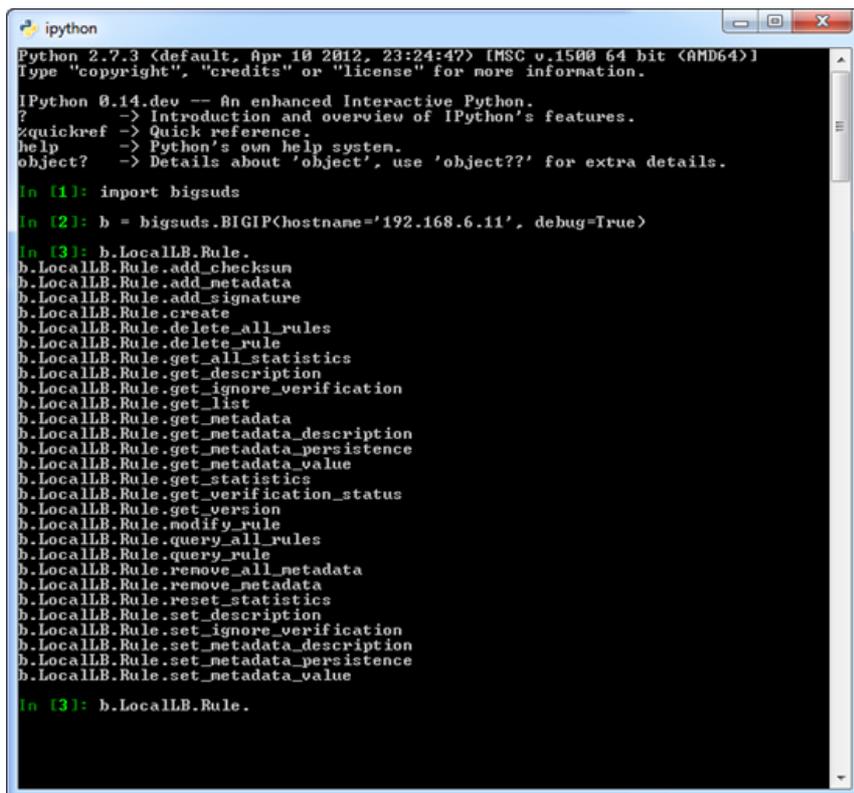


```
ipython
Python 2.7.3 (default, Apr 10 2012, 23:24:47) [MSC v.1500 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 0.14.dev -- An enhanced Interactive Python.
? -> Introduction and overview of IPython's features.
%quickref -> Quick reference.
help -> Python's own help system.
object? -> Details about 'object', use 'object??' for extra details.

In [1]: import bigsuds
In [2]: b = bigsuds.BIGIP(hostname='192.168.6.11', debug=True)
In [3]:
```

Next, I can enter an interface, such as LocalLB::Rule, and by hitting the tab key after b.LocalLB.Rule, I can get a listing of the methods instead of having to look them up in the [API Reference](#) on DevCentral.



```
ipython
Python 2.7.3 (default, Apr 10 2012, 23:24:47) [MSC v.1500 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 0.14.dev -- An enhanced Interactive Python.
? -> Introduction and overview of IPython's features.
%quickref -> Quick reference.
help -> Python's own help system.
object? -> Details about 'object', use 'object??' for extra details.

In [1]: import bigsuds
In [2]: b = bigsuds.BIGIP(hostname='192.168.6.11', debug=True)
In [3]: b.LocalLB.Rule.
b.LocalLB.Rule.add_checksum
b.LocalLB.Rule.add_metadata
b.LocalLB.Rule.add_signature
b.LocalLB.Rule.create
b.LocalLB.Rule.delete_all_rules
b.LocalLB.Rule.delete_rule
b.LocalLB.Rule.get_all_statistics
b.LocalLB.Rule.get_description
b.LocalLB.Rule.get_ignore_verification
b.LocalLB.Rule.get_list
b.LocalLB.Rule.get_metadata
b.LocalLB.Rule.get_metadata_description
b.LocalLB.Rule.get_metadata_persistence
b.LocalLB.Rule.get_metadata_value
b.LocalLB.Rule.get_statistics
b.LocalLB.Rule.get_verification_status
b.LocalLB.Rule.get_version
b.LocalLB.Rule.modify_rule
b.LocalLB.Rule.query_all_rules
b.LocalLB.Rule.query_rule
b.LocalLB.Rule.remove_all_metadata
b.LocalLB.Rule.remove_metadata
b.LocalLB.Rule.reset_statistics
b.LocalLB.Rule.set_description
b.LocalLB.Rule.set_ignore_verification
b.LocalLB.Rule.set_metadata_description
b.LocalLB.Rule.set_metadata_persistence
b.LocalLB.Rule.set_metadata_value

In [3]: b.LocalLB.Rule.
```

Finally, I can select my method and by adding a question mark and hitting return, I can see the method documentation necessary for submitting arguments for the commands.

```
ipython
b.LocalLB.Rule.create
b.LocalLB.Rule.delete_all_rules
b.LocalLB.Rule.delete_rule
b.LocalLB.Rule.get_all_statistics
b.LocalLB.Rule.get_description
b.LocalLB.Rule.get_ignore_verification
b.LocalLB.Rule.get_list
b.LocalLB.Rule.get_metadata
b.LocalLB.Rule.get_metadata_description
b.LocalLB.Rule.get_metadata_persistence
b.LocalLB.Rule.get_metadata_value
b.LocalLB.Rule.get_statistics
b.LocalLB.Rule.get_verification_status
b.LocalLB.Rule.get_version
b.LocalLB.Rule.modify_rule
b.LocalLB.Rule.query_all_rules
b.LocalLB.Rule.query_rule
b.LocalLB.Rule.remove_all_metadata
b.LocalLB.Rule.remove_metadata
b.LocalLB.Rule.reset_statistics
b.LocalLB.Rule.set_description
b.LocalLB.Rule.set_ignore_verification
b.LocalLB.Rule.set_metadata_description
b.LocalLB.Rule.set_metadata_persistence
b.LocalLB.Rule.set_metadata_value

In [11]: b.LocalLB.Rule.add_checksum?
Type:          function
String Form:  <function add_checksum at 0x00000000045D0DD8>
File:         c:\users\jrahm\downloads\ipython-master\ipython-master\build\bdist.u
in-amd64\egg\bigsubs.py
Definition:   b.LocalLB.Rule.add_checksum(*args, **kwargs)
Docstring:    Computes and adds a checksum to each specified rule.
iControl signature: add_checksum(Common.StringSequence rule_names)

In [12]:
```

Hopefully these additions will assist in your development efforts--happy coding!

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