

90_CloneNBuild

September 7, 2018

1 pydarknet2 Clone & Build Example

An example of the full clone & build process.

```
In [1]: # Imports
import tempfile
import socket
import subprocess

# Create a temporary directory to house this darknet example.
darknet_root = tempfile.mkdtemp(prefix="darknet_", suffix="_"+socket.gethostname())

# Because tempfile.mkdtemp creates a directory,
# so clone breaks because darknet_root exists.
import shutil
try:
    shutil.rmtree(darknet_root)
except FileNotFoundError:
    pass # yeah.
except:
    raise

darknet_root
```

```
Out[1]: '/tmp/darknet_3zri6zk6_m6700'
```

1.1 Cloning Darknet

```
In [2]: # My darknet clone with some minor changes to the Makefile.
# https://github.com/jed-frey/darknet
clone_url = "https://github.com/jed-frey/darknet.git"

In [3]: # pydarknet2 itself
import pydarknet2
import pydarknet2.darknet.exceptions

In [4]: # Create a new Darknet instance with the given root.
dn = pydarknet2.Darknet(root=darknet_root)
```

View the Darknet object:
Neither the binary nor directory exist.

```
In [5]: dn
```

```
Out[5]: Darknet<dir='False', bin='False'>
```

```
In [6]: # Clone a darknet directory.  
        dn.clone(clone_url=clone_url)
```

Starting clone ... Done

```
In [7]: dn # The directory now exists, binary doesn't.
```

```
Out[7]: Darknet<dir='True', bin='False'>
```

```
In [8]: try:  
        # It'll throw an error because you already did it above.  
        dn.clone(clone_url=clone_url)  
  
        # Raise an exception if there wasn't already an exception.  
        raise Exception("You shouldn't be here.")  
    except pydarknet2.darknet.exceptions.CloneException:  
        # Catch the exception we expected.  
        pass # Working as intended.  
    except:  
        # Raise all other exceptions.  
        raise
```

```
In [9]: # Now force it to clone.  
        dn.clone(clone_url=clone_url, force=True)
```

Starting clone ... Done

1.2 Building Darknet

```
In [10]: dn
```

```
Out[10]: Darknet<dir='True', bin='False'>
```

```
In [11]: dn.build(opencv=False, openmp=False, force=True) # No OpenCV, OpenMP, GPU, etc...
```

Starting build (take a water break) ... Done

```
In [12]: dn # Directory and binary exist.
```

```
Out[12]: Darknet<dir='True', bin='True'>
```

```

In [13]: dn.exe # Get the binary path.
Out[13]: '/tmp/darknet_3zri6zk6_m6700/darknet'

In [14]: dn.exists # Shorthand that the binary exists.
Out[14]: True

    Check linked libraries to see if it was built as defined:

In [15]: out = subprocess.check_output(["ldd", dn.exe]).decode("UTF-8")

In [16]: "opencv" in out # Should be no opencv libraries.
Out[16]: False

In [17]: "openmp" in out # Should be no openmp libraries.
Out[17]: False

In [18]: dn.build(opencv=True, openmp=True, force=True)

Starting build (take a water break) ... Done

In [19]: # Check linked libraries:
         out = subprocess.check_output(["ldd", dn.exe]).decode("UTF-8")

In [20]: "opencv" in out # Should be some opencv libraries.
Out[20]: True

In [21]: "openmp" in out # Should be some openmp libraries.
Out[21]: True

In [ ]:

```