Ryan was a RedHat sysadmin for Penn State before joining Puppet Labs as a professional services engineer. Now is product owner for the Forge.
The Puppet Forge is a community driven web service for contributing and finding Puppet modules.
Word cloud made from forge module names. Size = frequency
The following are examples of what you might find on the Forge.
ini_setting { 'enable plugin sync':
  ensure => present,
  path => '/etc/puppet/puppet.conf',
  section => 'agent',
  setting => 'pluginsync',
  value => 'true',
}
**jhaals/warranty**

**Author:** Johan Haals  
**Links:** Project URL  
**Tags:** lenovo, dell, warranty, linux, mac, windows

**Latest release:** 0.0.4  
**Release date:** Sep 20, 2012  
**Total downloads:** 168

**Other releases:** 0.0.4

---

**How to Install**

Run this code on your puppet node using the Puppet Module Tool:

```
puppet module install jhaals/warranty
```

The Puppet Module Tool is available in Puppet 2.7.14+ and Puppet Enterprise 2.5+ Read about installing modules

Or: Download as a .tar.gz

---

**Warranty**

This module provides additional warranty facts.

**Supported Manufacturers**

- Machintosh
- Dell
- Lenovo

Please contribute with for more manufacturers.

---

**Facts**

```
warranty => true  
warranty_expiration => April 4, 2013  
machine_type => MacBook Air (11-inch, Mid 2011)
```
maestrodev/wget

How to Install

Run this code on your puppet node using the Puppet Module Tool:

```
puppet module install maestrodev/wget
```

The Puppet Module Tool is available in Puppet 2.7.14+ and Puppet Enterprise 2.5+ [Read about installing modules](#).

Or: [Download as a .tar.gz](#)

Example

```
include wget

wget::fetch { 
  "download":
    source => "http://www.google.com/index.html",
    destination => "/tmp/index.html",
    timeout => 0,
    verbose => false,
}

wget::authfetch { "download":
    source => "http://www.google.com/index.html",
    destination => "/tmp/index.html",
    user => "user",
    password => "password",
    timeout => 0,
    verbose => false,
} 
```
**How to Install**

Run this code on your puppet node using the Puppet Module Tool:

```
puppet module install simondean/iis
```

The Puppet Module Tool is available in Puppet 2.7.14+ and Puppet Enterprise 2.5+ [Read about installing modules](#).

Or: [Download as a .tar.gz](#)

---

**iis_apppool**

**Description**

IIS App Pool

**Parameters**

name

- App pool name

**Properties**

ensure

- The basic property that the resource should be in. Valid values are `present`, `absent`.
- `queueLength`
module

Description

Parameters

name
version
modulepath
source

Properties

ensure
From the US, LA is the 5th largest city regarding forge traffic  
– Behind the bay
install

Install a module from the Forge or a release archive.

```
# puppet module install puppetlabs-apache --version 0.0.2
```

list

List installed modules.

```
# puppet module list
```

search

Search the Forge for a module.

```
# puppet module search apache
```

uninstall

Uninstall a puppet module.

```
# puppet module uninstall puppetlabs-apache
```

upgrade

Upgrade a puppet module.

```
# puppet module upgrade puppetlabs-apache --version 0.0.3
```
puppetlabs/puppetdb

Author: Puppet Labs
Links: Project URL | Report issues
Tags: storeconfig, puppetdb, puppet

Latest release: 1.1.4
Release date: Jan 17, 2013
Total downloads: 5,154
Other releases: 1.1.4

How to Install
Run this code on your puppet node using the Puppet Module Tool:

```
puppet module install puppetlabs/puppetdb
```

The Puppet Module Tool is available in Puppet 2.7.14+ and Puppet Enterprise 2.5+ Read about installing modules

Or: Download as a .tar.gz

- cprice404/inifile (>= 0.9.0)
- puppetlabs/postgresql (2.x)
- puppetlabs/firewall (>= 0.0.4)
puppet module install puppetlabs/puppetdb
Preparing to install into /tmp ...
Downloading from http://forge.puppetlabs.com ...
Installing -- do not interrupt ...
/tmp
|-- puppetlabs-puppetdb (v1.1.4)
   |-- cprice404-inifile (v0.9.0)
   |-- puppetlabs-firewall (v0.0.4)
   |-- puppetlabs-postgresql (v2.1.0)
      |-- puppetlabs-apt (v1.1.0)
      |-- puppetlabs-stdlib (v3.2.0)
      |-- ripienaar-concat (v0.2.0)
Best Good Practices
Style Guide

Style Guide Metadata

Version 1.1.2

1. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119.

2. Puppet Version

This style guide is largely specific to Puppet versions 2.6.x; some of its recommendations are based on some language features that became available in version 2.6.0 and later.

3. Why a Style Guide?

Puppet Labs develops modules for customers and the community, and these modules should represent the best known practice for module design and style. Since these modules are developed by many people across the organisation, a central reference was needed to ensure a consistent pattern, design, and style.

Contents

1. 1. Terminology
2. 2. Puppet Version
3. 3. Why a Style Guide?
4. 4. General Philosophies
5. 5. Module Metadata
   1. 5.1. Style Versioning
6. 6. Spacing, Indentation, & Whitespace
7. 7. Comments
8. 8. Quoting
9. 9. Resources
   1. 9.1. Resource Names
   2. 9.2. Arrow Alignment
   3. 9.3. Attribute Ordering
   4. 9.4. Compression
   5. 9.5. Symbolic Links
   6. 9.6. File Modes
   7. 9.7. Resource Defaults
10. 10. Conditionals
    1. 10.1. Keep Resource Declarations Simple
    2. 10.2. Defaults for Case Statements and Selectors
11. 11. Classes
    1. 11.1. Separate Files
9.1. Resource Names

All resource titles should be quoted. (Puppet supports unquoted resource titles if they do not contain spaces or hyphens, but you should avoid them in the interest of consistent look-and-feel.)

**Good:**

```shell
package { 'openssh': ensure => present }
```

**Bad:**

```shell
package { openssh: ensure => present }
```
9.2. Arrow Alignment

All of the fat comma arrows (⇒) in a resource’s attribute/value list should be aligned. The arrows should be placed one space ahead of the longest attribute name.

**Good:**

```yaml
exec { 'blah':
    path => '/usr/bin',
    cwd => '/tmp',
}

exec { 'test':
    subscribe => File['/etc/test'],
    refreshonly => true,
}
```

**Bad:**

```yaml
exec { 'blah':
    path => '/usr/bin',
    cwd => '/tmp',
}

exec { 'test':
    subscribe => File['/etc/test'],
    refreshonly => true,
}
11.1. Separate Files

All classes and resource type definitions must be in separate files in the `manifests` directory of their module. For example:

```puppet
# /etc/puppetlabs/puppet/modules/apache/manifests

# init.pp
   class apache { }
# ssl.pp
   class apache::ssl { }
# virtual_host.pp
   define apache::virtual_host () { }
```

This is functionally identical to declaring all classes and defines in init.pp, but highlights the structure of the module and makes everything more legible.
Check that your Puppet manifest conform to the style guide

Install It!

$ gem install puppet-lint

Run It!

$ puppet-lint --with-filename /etc/puppet/modules
foo/manifets/bar.pp: trailing whitespace found on line 1
apache/manifets/server.pp: variable not enclosed in {} on line 56
...

Fix Them!

Head on over to the checks page to see a description of each check and get some help on how to clear those errors.
As you get further along with your Puppet Deployments, separating your code (puppet resources) from the data (what package, what version) becomes increasingly important.
class forge {
  package { 'nginx':
    ensure => '1.0.1',
  }
}

How do you get from A to B?

class forge {
    package { 'nginx':
        ensure => '1.0.1',
    }
}

class forge {
    package { $package_name:
        ensure => $package_version,
    }
}
The answer, use Hiera!

Seriously, these docs rock. Read them. http://docs.puppetlabs.com/hiera/1/index.html
It’s MAGIC

But also, it’s not...

But first, let’s take a closer look at a Puppet run.
Puppet Master
I need the value for $forge::package_name. How should I conduct my search?
I need the value for $forge::package_name.

How should I conduct my search?

---
backends:
  - yaml
:yaml:
  :datadir: /etc/puppet/hieradata
 hierarchy:
  - $::clientcert
  - $::operatingsystem
  - common

Hiera lets you express data in some structured format (which is pluggable).

You then establish a hierarchy of lookup, however you like, usually based on facts.
I need the value for $forge::package_name.

How should I conduct my search?

Consider your hierarchy the lookup order.
Facts can be used for a dynamic hierarchy.
Hiera will simply consult the structured data, looking for variable names, expecting files named after your entry in hiera.yaml.
Hierarchy matters. The package name is now tmux.
Ok, so how do I implement it?

Thankfully, Puppet 3 has made implementing Hiera really simple.
Please don’t use the hiera() function. Consider it legacy.
This is better, as the user can override this default parameter value.

With this, you’re locked into hiera.
But really, just get yourself onto Puppet 3 and take advantage of automatic Hiera!
Data Bindings
don’t lock yourself in

Additionally, protect yourself from a potential loss of Hiera.
Data Lookup Order

- Use explicit class declaration values
- Query Data Binding
- Use the default value from class.
- Fail compilation with an error if no value can be found.
**data_binding**

Where to find external data bindings.

- **Terminus Setting:** `data_binding_terminus`

**hiera**

- Retrieve data using Hiera.

**none**

- A Dummy terminus that always returns nil for data lookups.
domcleal/foreman_data_binding

How to Install
Run this code on your puppet node using the Puppet Module Tool:
```
puppet module install domcleal/foreman_data_binding
```
-->

foreman_data_binding
Data binding terminus for Puppet 3+ that uses Foreman's smart class parameters feature to resolve class parameters. Drop-in replacement for Hiera.
But really, just get yourself onto Puppet 3 and take advantage of automatic Hiera!
Best Practices

- Confirm to the Style Guide
- Use Parameterized Classes
- Don’t use hiera() directly

Re-cap.
Interfaces
node 'forge-website' {

  class { 'forge::package':
    package_name => 'nginx',
  }

  class { 'forge::service':
    service_name => 'unicorn',
    port => '443',
  }

}
good.pp

```plaintext
node 'forge-website' {

class { 'forge':
    package_name => 'nginx',
    port => '443',
}
}
```
node 'forge-website' {
  class { 'forge':
    package_name => 'nginx',
    port => '443',
    manage_nginx => false,
  }
}

# somewhere else
class forge {
  ...

  if $forge::manage_nginx {
    include nginx
    nginx::vhost { 'forge':
      vhostroot => '/var/www/forge',
      port => 443,
    }
  }
}

}
The Team
What have we been up to?

- Re-launch and Re-design

Though we’re small, we’ve been really busy!
Module **puppetlabs/apache**

**Latest Release:** 0.0.4  -  May 8, 2012

- [263e2e62](#) Fix broken tests for sasl, vhost, vhost:*
- [862e893d](#) Change to match style guide and pass puppet-list without errors
- [62be8ef8](#) Changed name => path for file resources in order to name nowhere by its name
- [22e3e16a](#) One end too much
- [93e3e16a](#) style guide flaws: 'true' <> true, $operatingsystem needs to be $:/operatingsystem, etc.
- [323e3e16a](#) fix tests
- [333e3e16a](#) Make a2enmod/a2dismo commands optional
- [98e3e16a](#) Autorequire Package['https://']
- [323e3e16a](#) Add missing puppet spec tests
- [323e3e16a](#) Remove virtual a2mod definition
- [323e3e16a](#) Move mod python and wsgi package names to params
- [323e3e16a](#) Add .gitignore to repo
- [323e3e16a](#) Remove php directory from source tree
- [323e3e16a](#) Add LICENSE file and update the ModuleFile
- [323e3e16a](#) Re-enable local php class
- [323e3e16a](#) Make management of firewalls configurable for vhosts
- [323e3e16a](#) Explicitly lookup scope of apache name in templates.
- [323e3e16a](#) Add explicit ordering for vdir directory
- [323e3e16a](#) apache2-apache depends on puppetlabs-firewall
- [323e3e16a](#) Fix to work with latest firewall module
- [323e3e16a](#) Add support for Scientific Linux
- [323e3e16a](#) Fix for a2mod
- [323e3e16a](#) Commit apache::vhost::redirect::Manifest
- [323e3e16a](#) Commit apache::vhost::proxy::Manifest
- [323e3e16a](#) Commit apache::mod::wsgi::Manifest
- [323e3e16a](#) Commit apache::mod::python::Manifest
- [323e3e16a](#) Commit Templates
- [93e3e16a](#) Vhost File Declarations
- [323e3e16a](#) Default for Parameters
- [323e3e16a](#) Ensure installed
- [323e3e16a](#) a2enmod fix
- [323e3e16a](#) add pchon support to apache

**Dependencies**

- puppetlabs/firewall (> = 0.0.4)

**Types**

**a2mod**

**Description**
Manage Apache 2 modules on Debian and Ubuntu

**Parameters**

- name
  
  The name of the module to be managed

**Properties**
Lots of little features add up to a substantially nicer to use Forge.
What have we been up to?

- Re-launch and Re-design
- PMT Fixes (prep for publish)
- Download Counts
Download counts, now in your search results!
What’s Next?

GitHub Publish

Edit your Modulefile, push your commit and we’ll do the publishing! Coming soon to a repository near you.
What’s Next?

A Full & Public API

Also coming soon, an actual API for doing all sorts of things with the Forge.
What’s Next?

Find modules

- apa...
Private Forge has been a common request.
RedHat’s Pulp Project is repository management software that recently added support for Puppet Modules.
- Manage Modules on-premise
- Mirror Public Forge
- BUT, please work with me on this
- Email me or comment on #5033

If you’re interested in this, email ryan@puppetlabs.com or add your thoughts to https://projects.puppetlabs.com/issues/5033.

We’re going to do something in this space, but want to hear more from you on what you need.
If you want to add your influence to our products, join the Puppet Labs Test Pilots program!

https://puppetlabs.com/community/puppet-test-pilots-program/
Our education courses are carefully crafted and delivered by our fabulous education team and professional services team.

Advanced course coming to LA 3/19

Browse upcoming events at http://puppetlabs.eventbrite.com/
QUIT WORRYING ABOUT YOUR TOOLS.
Automate the pain out of your development environment. Boxen installs your dependencies so you can focus on getting things done.

FEATURES

PROTECT YOURSELF, FROM YOURSELF.
Manage the dependencies of all of your apps in one place.

KEEP YOUR HEAD.
Worried you might miss out on a crucial update?
Don’t! Each time you run your boxen, it automagically™ updates to the latest release.

A FUTURE, WITH JETPACKS.
Need a few different databases and languages to run your apps?
We’ve got you covered. 
There’s just a few lines of...

JUST ADD FIRE.
Fully configurable, instaday environments for you...
Gary Larizza has a great blog post on Boxen.

http://garylarizza.com/blog/2013/02/15/puppet-plus-github-equals-laptop-love/
WE’RE HIRING!

- Puppet Forge Module Engineer
- puppetlabs.com/jobs

Tuesday, February 26, 13

Seriously, join our team. It’ll be awesome.