

Day one highlights

Subscription

- Standard RH subscription gives you access to ansible repos but no support on ansible
- You can purchase additional subscription to get ansible support if required
 - Remember to attach the correct subscription
- The ansible repos need to be enabled. Repo IDs in the book.

Control Node requirements

- Linux or UNIX (not windows)
- python 2.7 and above or python 3.5 and above
- python2-winrm if managing windows

Managed Hosts

Linux

- python 2.6 and above OR python 3.5 and above
- SSH connectivity
- libselinux-python is SELINUX is used

Windows

- Powershell 3.0 and .NET Framework 4.0
- Powershell remoting to be configured.

Network Equipment

- CLI over SSH , XML over SSH or API over HTTPS

Static Inventories

[group1]

servera ansible_connection=local

serverb ansible_host=192.168.0.10

[main_group:children]

group1

[mygroup1]



[mygroup:children]

mygroup1

mygroup1 is a placeholder group where members defined in another inventory file to prevent group resolution errors

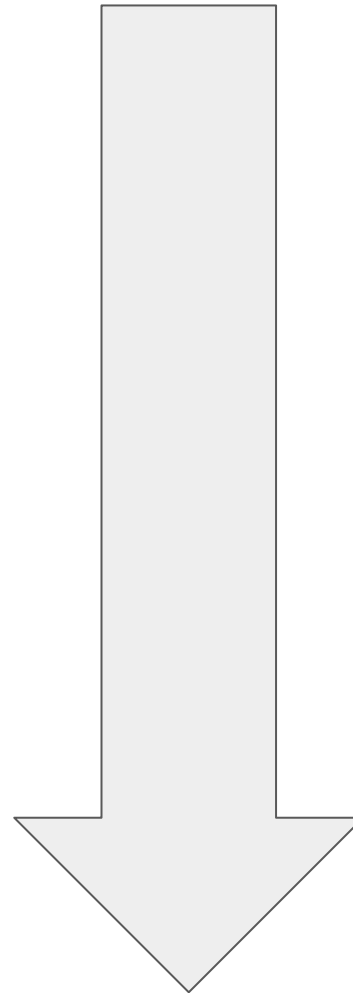
Ansible Config File

\$ANSIBLE_CONFIG
environment variable

./ansible.cfg
(in current directory)

~/.ansible.cfg
Home directory, hidden file

/etc/ansible/ansible.cfg



Highest Precedence

`$ ansible --version`

To confirm which config file is
being used

Lowest Precedence

Ansible config file

[defaults]

inventory = FILE|DIRECTORY

remote_user = USER # set with -u on command line

[privilege_escalation]

become = true|false # set with -b on command line

become_method = sudo | ...

become_user = USER

become_ask_pass = true|false

Implicit localhost vs Explicit localhost

```
[student@workstation temp]$ cat inventory
servera
[student@workstation temp]$ ansible localhost -u devops -m command -a "id"
localhost | CHANGED | rc=0 >>
uid=1000(student) gid=1000(student) groups=1000(student),10(wheel) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023

[student@workstation temp]$ echo localhost >> inventory
[student@workstation temp]$ cat inventory
servera
localhost
[student@workstation temp]$ ansible localhost -u devops -m command -a "id"
localhost | CHANGED | rc=0 >>
uid=1001(devops) gid=1001(devops) groups=1001(devops) context=unconfined_u:unconfined_r:unconfined_t:s0-s0:c0.c1023
```


Ad-hoc Commands

```
$ ansible PATTERN -m MODULE -a MODULE_OPTIONS
```

Default module is the **command** module

Playbooks

myplaybook.yml



Each play is a list item
(hence starts with “-”)

ansible-playbook [OPTIONS] PLAYBOOK.yml

--syntax-check

-C | --check

Modules

\$ ansible-doc -l

\$ ansible-doc MODULE

Modules used

- copy
- yum
- service
- firewalld
- get_url
- uri
- debug
- command
- shell
- user

Variables

Global Variables

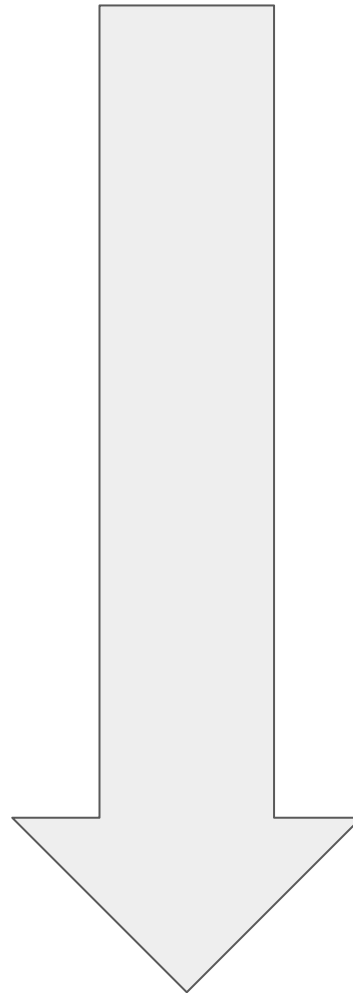
Set with -e

Playbook variables

vars: or vars_files:

Inventory variables

Variables specific to a host
or a group



Highest
Precedence

Lowest
Precedence

Variables

Global Variables

Set with -e

```
$ ansible-playbook -e myvar=somevalue play.yml
```

Playbook variables

vars: or vars_files:

- name: First Play
hosts: all
vars:
 myvar: abc
vars_files:
 - variables/file1.yml

Inventory variables

Variables specific to a host
or a group

```
Project directory/  
  host_vars/  
    servera.yml  
    serverb.yml  
  group_vars/  
    group1.yml  
    group2.yml
```

Registered Variables

- To capture output/results/status of a module
- Use the debug module to investigate the properties of the registered variable

tasks:

- name: Execute a shell script

shell: /usr/local/bin/backup.sh

register: output