

MISE À JOUR 1.0 !



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ara

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Ansible Montréal - Novembre 2017



@dmsimard
#ansible
#montreal



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➤ [HTTPS://GITHUB.COM/OPENSTACK/ARA/README.RST](https://github.com/openstack/ara/README.RST)

ARA records Ansible playbook runs and makes the recorded data available and intuitive for users and systems.




```
2017-04-12 12:01:34.214048 |
2017-04-12 12:01:34.214134 | TASK [openstack-ansible-security : Initialize AIDE (this will take a few minutes)] ***
2017-04-12 12:01:34.232636 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.184) 0:00:59.018 *****
2017-04-12 12:01:34.265490 | skipping: [aiol]
2017-04-12 12:01:34.288522 |
2017-04-12 12:01:34.288576 | TASK [openstack-ansible-security : Move AIDE database into place] *****
2017-04-12 12:01:34.306537 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.073) 0:00:59.092 *****
2017-04-12 12:01:34.318924 |
2017-04-12 12:01:34.318972 | TASK [openstack-ansible-security : Create AIDE cron job] *****
2017-04-12 12:01:34.336402 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.029) 0:00:59.122 *****
2017-04-12 12:01:34.348275 |
2017-04-12 12:01:34.348323 | TASK [openstack-ansible-security : Configure AIDE to verify additional properties] ***
2017-04-12 12:01:34.365565 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.029) 0:00:59.151 *****
2017-04-12 12:01:34.378115 |
2017-04-12 12:01:34.378162 | TASK [openstack-ansible-security : include] *****
2017-04-12 12:01:34.396591 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.030) 0:00:59.182 *****
2017-04-12 12:01:34.489629 | included: /etc/ansible/roles/openstack-ansible-security/tasks/rhel7stig/auditd.yml for aiol
2017-04-12 12:01:34.549208 |
2017-04-12 12:01:34.549288 | TASK [openstack-ansible-security : Verify that auditd.conf exists] *****
2017-04-12 12:01:34.575654 | Wednesday 12 April 2017 12:01:34 +0000 (0:00:00.178) 0:00:59.361 *****
```

- 35 000 LIGNES !!
- 10 MB !!



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APRÈS

 2017-10-19 21:14:08 [setup-openstack.yml](#) ⌚ 1:01:10 > ⚙️ Parameters > 📋 19 Hosts > 🚩 53 Plays > 📁 161 Files > ✓ 2904 Tasks > 📄 0 Records

Tasks

Search:

Showing 1 to 25 of 2,521 Items

Task	Host	Action	Elapsed ^	Duration	Status
Ensure Rabbitmq vhost	aio1_keystone_container-bd5de70d	rabbitmq_vhost	0:00:00	0:00:02	CHANGED
Ensure rabbitmq user	aio1_keystone_container-bd5de70d	rabbitmq_user	0:00:02	0:00:04	CHANGED
Create DB for service	aio1_keystone_container-bd5de70d	mysql_db	0:00:07	0:00:01	CHANGED
Grant access to the DB for the service	aio1_keystone_container-bd5de70d	mysql_user	0:00:08	0:00:01	CHANGED
include	aio1_keystone_container-bd5de70d	include	0:00:10	0:00:00	SKIPPED
Set default bind mounts (bind var/log)	aio1_keystone_container-bd5de70d	set_fact	0:00:10	0:00:00	OK
Ensure mount directories exists	aio1_keystone_container-bd5de70d	file	0:00:10	0:00:01	OK
Add bind mount configuration to container	aio1_keystone_container-bd5de70d	lineinfile	0:00:12	0:00:01	CHANGED
Extra lxc config	aio1_keystone_container-bd5de70d	lineinfile	0:00:13	0:00:00	SKIPPED
Extra lxc config no restart	aio1_keystone_container-bd5de70d	lineinfile	0:00:13	0:00:00	CHANGED
Lxc container restart	aio1_keystone_container-bd5de70d	command	0:00:14	0:00:02	CHANGED
Start Container	aio1_keystone_container-bd5de70d	command	0:00:16	0:00:00	CHANGED
Wait for container connectivity	aio1_keystone_container-bd5de70d	wait_for_connection	0:00:17	0:00:03	OK
Create log dir	aio1_keystone_container-bd5de70d	file	0:00:21	0:00:00	SKIPPED
Create log aggregation links	aio1_keystone_container-bd5de70d	file	0:00:21	0:00:00	SKIPPED
test proxy URL for connectivity	aio1_keystone_container-bd5de70d	uri	0:00:21	0:00:00	OK
Drop apt package manager proxy	aio1_keystone_container-bd5de70d	copy	0:00:22	0:00:01	CHANGED
Update apt when proxy is added	aio1_keystone_container-bd5de70d	apt	0:00:24	0:00:03	CHANGED
Add keystone reserved port to physical host	aio1_keystone_container-bd5de70d	sysctl	0:00:27	0:00:00	SKIPPED
pip_install : Gather variables for each operating system	aio1_keystone_container-bd5de70d	include_vars	0:00:27	0:00:00	OK
pip_install : Remove unneeded files from previous releases	aio1_keystone_container-bd5de70d	file	0:00:27	0:00:01	OK
pip_install : Create pip config directory	aio1_keystone_container-bd5de70d	file	0:00:29	0:00:01	CHANGED
pip_install : Drop pip file(s)	aio1_keystone_container-bd5de70d	copy	0:00:30	0:00:01	CHANGED
pip_install : Drop pip config	aio1_keystone_container-bd5de70d	config_template	0:00:31	0:00:00	CHANGED
pip_install : Remove known problem packages	aio1_keystone_container-bd5de70d	package	0:00:32	0:00:00	OK

« < 1 of 101 > »

 2017-10-19 20:48:20 [setup-infrastructure.yml](#) ⌚ 0:25:27 > ⚙️ Parameters > 📋 25 Hosts > 🚩 21 Plays > 📁 150 Files > ✓ 1139 Tasks > 📄 0 Records



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COMMENT ?

How to draw an owl

1.



1. Draw some circles

2.



2. Draw the rest of the owl

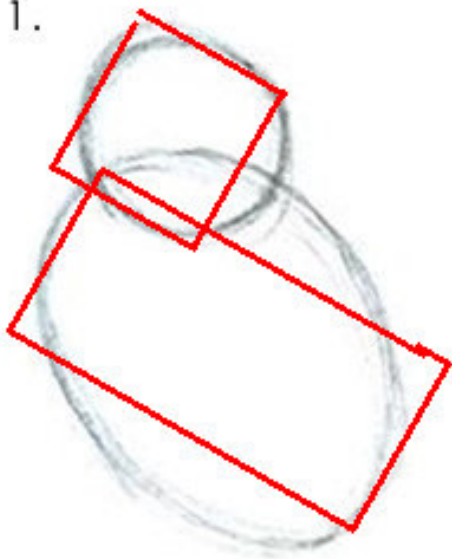


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COMMENT ?

How to draw an owl ~~ARA~~

1.



2.



POLYGONS

1. Draw some ~~circles~~

2. Draw the rest of the owl ~~ARA~~



INSTALLATION ET UTILISATION

```
# TL;DR
$ pip install ansible ara
[...]
$ export ANSIBLE_CALLBACK_PLUGINS=/usr/lib/python2.7/site-packages/ara/plugins/callbacks
$ ansible-playbook -i hosts test.yml
[...]
$ ara playbook list
```

ID	Path	Time Start	Duration	Complete	Ansible Version
<uuid>	test.yml	2017-04-09 01:49:48	0:00:04	True	2.2.2.0

```
$ ara-manage runserver
* Running on http://127.0.0.1:5000/
```



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1.0

🔗 Commits 124

📁 Files changed 102

💬 Commit comments 0

📄 Showing **102 changed files** with **6,469 additions** and **2,711 deletions**.





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BACKEND: API

Avant

```
results = (models.TaskResult().query
            .join(models.Task)
            .filter(models.TaskResult.task_id == models.Task.id))
```

Après

```
from ara.api.v1.results import ResultApi

# Get the list of failed task results from a specific playbook
response, results = ResultApi().get(playbook_id=1,
                                     failed=True)

# Import the "Playbook" API client
from ara.api.v1.playbooks import PlaybookApi

# Get a list of all playbooks
response, playbooks = PlaybookApi().get()

# Get the details of a specific playbook
response, playbook = PlaybookApi().get(id=1)
```

ENTRÉE DE DONNÉES (INPUT)

- Callback Ansible
- Pure REST
- Message queue (rabbitmq, mqtt, etc.)
- ...

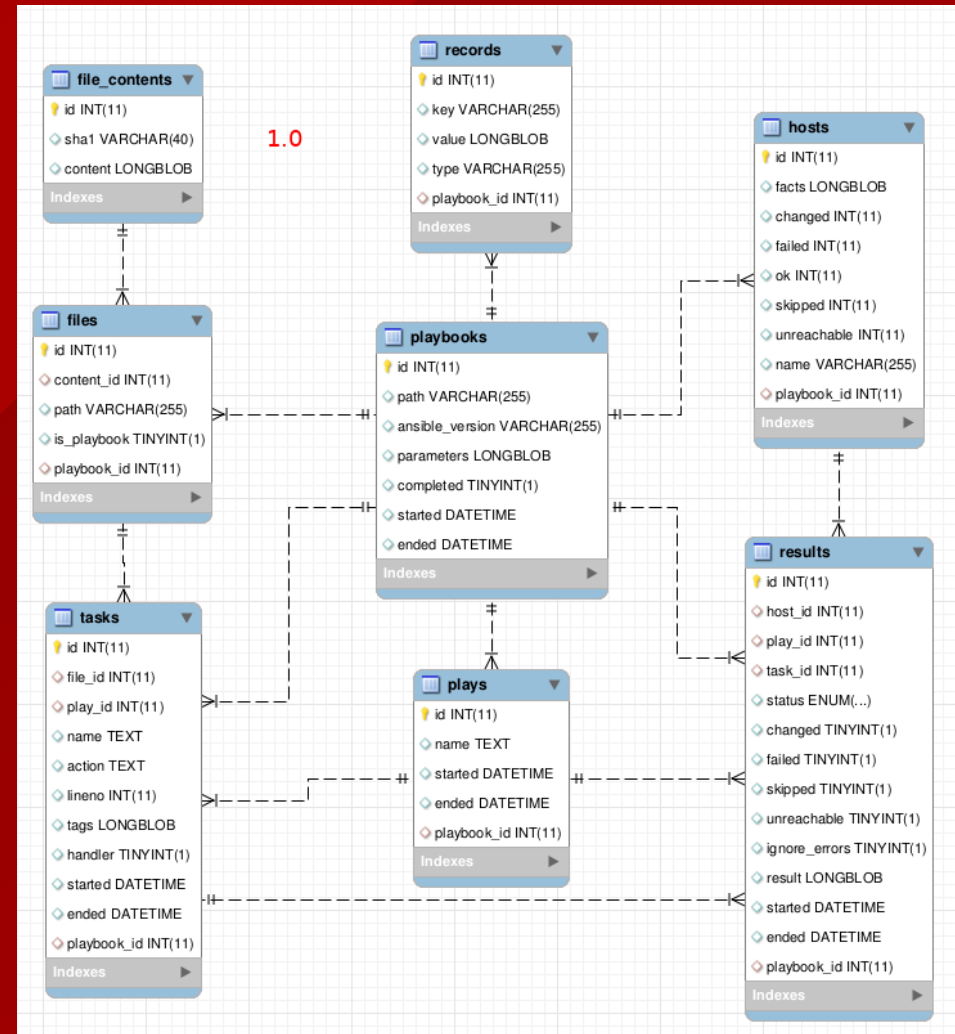
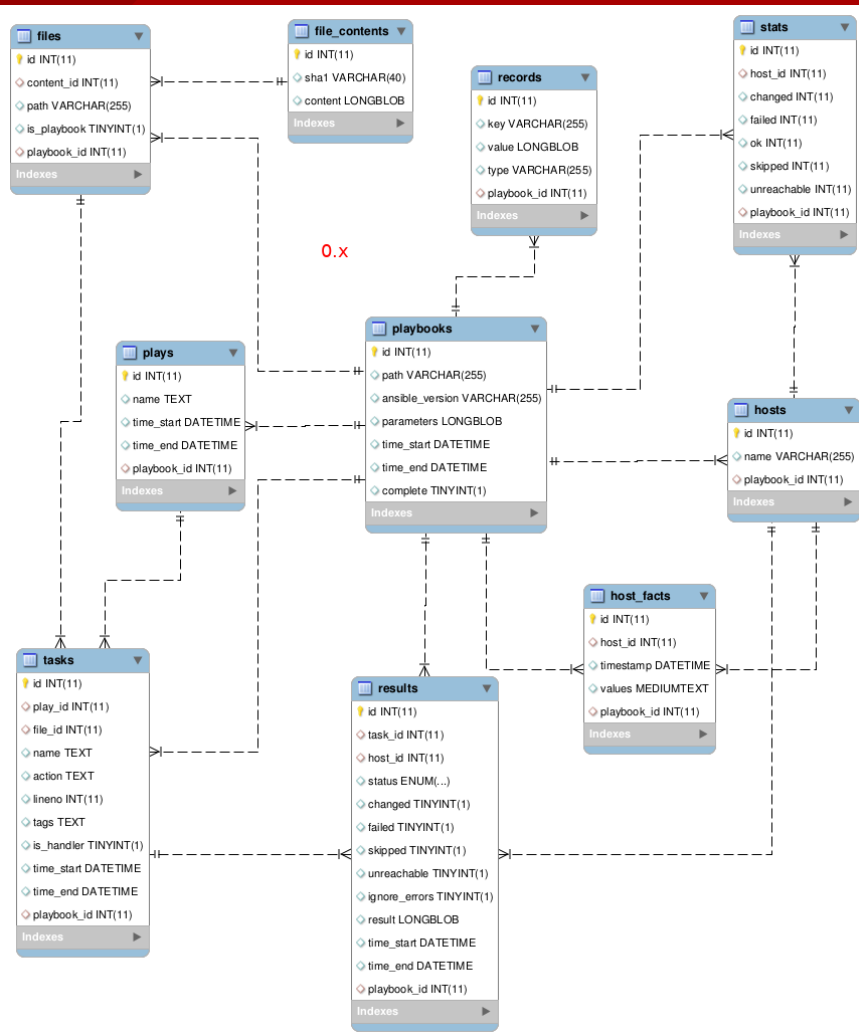
SORTIE DE DONNÉES (OUTPUT)

- Web
- HTML
- Subunit
- junit
- elasticsearch/logstash
- influxdb/graphite
- ...



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BACKEND: DATABASE





FRONTEND

STOCKAGE DE TOUT LES FICHIERS

```

v [ ] integration
  v [ ] group_vars
    [ ] all.yml
  v [ ] host_vars
    [ ] localhost.yml
  v [ ] roles
    v [ ] smoke-tests
      v [ ] defaults
        [ ] main.yml
      v [ ] handlers
        [ ] main.yml
      v [ ] meta
        [ ] main.yml
      v [ ] tasks
        [ ] ara-ops.yml
        [ ] main.yml
        [ ] test-ops.yml
    [ ] smoke.yml
```

MEILLEUR AFFICHAGE DES HOSTS, PLAYS, ROLES ET LEUR RELATIONS

REGROUPEMENT DE PLAYBOOKS LOGIQUE ("PHASES")

NOMS DE PLAYBOOKS (EX: "INSTALL MYSQL" VS "PLAYBOOK.YML")



FONCTIONNALITÉS

- ENREGISTREMENT D'EXÉCUTIONS "ADHOC" ("ANSIBLE" VS "ANSIBLE-PLAYBOOK")
- SUPPORT POUR LE MODE "--CHECK" (DRY-RUN)
- SUPPORT POUR LE MODE "--DIFF"



QUAND ?

BETA: SEPTEMBRE 2017

OU EN SAVOIR PLUS ?



Documentation: docs.ansible.com
Source: github.com/ansible/ansible
IRC: #ansible @ freenode
#ansible-devel @ freenode



Documentation: ara.rtf.d.io
Source: github.com/openstack/ara
IRC: #ara @ freenode
Demo: bit.ly/ara-demo-013



redhat®

MERCI !
QUESTIONS ?



ANSIBLE

Documentation: docs.ansible.com
Source: github.com/ansible/ansible
IRC: #ansible @ freenode
#ansible-devel @ freenode



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Documentation: ara.rtf.d.io
Source: github.com/openstack/ara
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Demo: bit.ly/ara-demo-013