

Installation

This installation guide assumes you have setup and configured your CentOS / RHEL server. For more information, refer to our [Server Requirements & Setup](#) section.

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```
cd /var/www/  
git clone https://github.com/au-research/ANDS-Registry-Core.git core  
# Make sure the following directory have write access open  
chmod 754 -R /var/www/core/engine/logs  
chmod 754 -R /var/www/core/engine/cache  
chmod 754 -R /var/www/core/assets/uploads
```

Setup the database

Having installed a MySQL server, setup a new databases and initialise the tables:

```
mysql -u root -p  
CREATE DATABASE dbs_roles;  
CREATE DATABASE dbs_registry;  
CREATE DATABASE dbs_portal;
```

If required, create a web user account and give it access:

```
CREATE USER 'webuser' IDENTIFIED BY '<yourpassword>';  
GRANT SELECT, INSERT, UPDATE, DELETE ON dbs_roles.* TO 'webuser';  
GRANT SELECT, INSERT, UPDATE, DELETE ON dbs_registry.* TO 'webuser';  
GRANT SELECT, INSERT, UPDATE, DELETE ON dbs_portal.* TO 'webuser';  
FLUSH PRIVILEGES;
```

Import the table structure:

```
mysql -u root -p dbs_roles < /var/www/core/etc/db/mysql/dbs_roles_r15_full.sql  
mysql -u root -p dbs_registry < /var/www/core/etc/db/mysql/dbs_registry_r15_full.sql  
mysql -u root -p dbs_portal < /var/www/core/etc/db/mysql/dbs_portal_r15_full.sql
```

Seed the database with the first role superuser | superuser:

```
mysql -u root -p dbs_roles < /var/www/core/etc/db/mysql/dbs_roles_r15.seed.sql
```

Download and configure the search indexer

We will be using SOLR 5.4.0, ignore this section if you already have a SOLR instance running in another container (eg. Tomcat):

```
cd /opt  
wget http://archive.apache.org/dist/lucene/solr/5.4.0/solr-5.4.0.tgz  
tar -xzvf solr-5.4.0.tgz  
cd /opt/solr-5.4.0/  
bin/solr start -p 8983
```

SOLR should now be running in <http://localhost:8983/solr>



ARDC is making use of the JTS library for spatial searching requirements. This library is available as a jar file from [Maven Repository](#). The `jts-1.13.jar` file needs to be placed within the directory `/opt/solr-5.4.0/server/lib` directory

Adding the portal collection and the relations collection:

```
cd /opt/solr-5.4.0/  
bin/solr create -c portal  
bin/solr create -c relations
```

Update the SOLR schema for the portal and relations collection:

```
cd /var/www/core/  
php index.php registry maintenance migrate doMigration registryIndex  
php index.php registry maintenance migrate doMigration relationsIndex
```

The schema should be updated for <http://localhost:8983/solr/portal/schema> and <http://localhost:8983/solr/relations/schema>.

You can opt to install SOLR as a service for easy management.

Update the registry configuration

Update the `global_config.php`:

```
cp myrepo/global_config.sample myrepo/global_config.php
```

```
$eDBCONF['default']['password'] = '<yourpassword>';  
$ENV['default_base_url'] = "http://yourwebsite.com/"; #include trailing slash!  
// The SOLR URL is the URL of the search index core  
$ENV['solr_url'] = "http://yourwebsite.com:8080/solr/";
```

Update the deployment state to `production`:

```
$ENV['deployment_state'] = "production";
```

In production mode, all scripts and assets should be pre-compiled and ready to go.

To operate in development mode, various dependencies need to be installed correctly. ARDC is making use of `bower` and `composer` as dependency managers:

```
cd applications/portal  
bower install  
cd applications/api  
composer dump-autoload --optimize
```

Configure the web server `.htaccess` file:

 This may require AllowOverride All in your web server configuration

Configure the web server `httpd.conf` file:

 If you haven't done so already, change the `DocumentRoot` in `/etc/httpd/conf/httpd.conf` to `/var/www/core` for consistency

Copy the sample `.htaccess` file:

```
cp myrepo/htaccess.sample myrepo/.htaccess
```

open it with your favourite editor and update:

```
RewriteBase /
```

to the base of your app relative to the root:

Firewall / IPTables Port Forwarding

```
iptables -I RH-Firewall-1-INPUT 10 -p tcp -m tcp -s 130.56.111.64/26 --match multiport --dports 80,8080 -j  
ACCEPT -m comment --comment "HTTP and Tomcat Ports"  
iptables-save | tee /etc/sysconfig/iptables  
service iptables restart
```

Installing ARDC TaskManager



Optionally you can create a cronjob that hit the URL <http://localhost/api/task/run/> . This will achieve the same effect but will crunch through background task slower

TaskManager is ARDC own background tasking system that works closely with the Registry to lessen the amount of on demand PHP processing for some operation by putting it in the background.

```
cd /opt  
git clone https://github.com/au-research/ANDS-TaskManager.git ands-taskmanager  
cd /opt/ands-taskmanager  
mkdir log
```

Configure TaskManager:

```
polling_frequency = 5 #how often does the task manager hit the database  
max_thread_count = 5 #how many concurrent threads are run  
max_up_seconds_per_task = 7200 #when a task run past this number of seconds, consider it failed  
run_dir = '/opt/ands-taskmanager/' #the directory of the task manager  
admin_email_addr = "" #for reporting purposes  
response_url='https://localhost/api/task/exe/' #the exe to execute a task eg. http://localhost/api/task/exe/:  
taskid  
maintenance_request_url = 'http://localhost/api/task/run/' #maintenance task run when there's no task required  
data_store_path = run_dir + 'result_contents'  
log_dir= run_dir + 'log'  
log_level = "INFO"  
db_host='localhost'  
db_user='webuser'  
db_passwd=''  
db='dbs_registry'  
tasks_table='tasks'
```

Install TaskManager as a service:

```
cd /opt/ands-taskmanager  
cp ands-taskprocessor /etc/init.d/ands-taskmanager  
chmod 755 /etc/init.d/ands-taskmanager  
chkconfig --add ands-taskmanager  
chkconfig ands-taskmanager on  
service ands-taskmanager start
```

Finish

The registry should be accessible from <http://localhost/registry> . You should be able to logon using `superuser|superuser` and the portal should be accessible from <http://localhost/>

To start using the ARDC Harvester to harvest records into the registry, refer to the [Harvester documentation](#) for instructions on how to install and configure the ARDC Harvester.

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