

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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