

milestone 5 - Installing the Islandora Essential Modules

There are 2 essential modules, and they are part of the Islandora Minimum Viable Functionality.

- Islandora Core Module
- Islandora Basic Collection Solution Pack

Pre-installation software checklist

The Islandora framework relies upon a number of other open source applications. Before beginning the installation of any Islandora modules, ensure:

1. You have [Fedora installed and properly configured](#):

Ensure you can use the admin tools in Fedora to ingest and purge (e.g. <http://localhost:8080/fedora/admin>).

2. You have [Drupal installed and properly configured](#) with:

Clean URLs enabled (admin/config/search/clean-urls) - requires the Apache mod_rewrite module to be enabled.

The Drupal file system set to public (admin/config/media/file-system)

3. You have the [Tuque library properly installed](#):

Solution Pack Dependencies

Any Islandora Module or Solution Pack may come with a specific set of requirements and dependencies outside of the scope of the Islandora Essential Functionality Installation. You will need to install any dependencies specific to a Module or Solution Pack in order for them to function properly.

Installing the Islandora Core Module for Drupal

To install the module, use the standard Drupal module installation structure. Get the module from the [Release Notes and Downloads](#) page.

- Place the unpackaged module in your site's 'modules' folder, with the name stripped out of the version. For single-site installations, this should almost always be in **/var/www/drupal/sites/all/modules**.

Unzip method

```
Save the downloaded islandora-7.x-1.11.zip file into /opt/downloads
# cd /var/www/drupal/sites/all/modules
# unzip /opt/downloads/islandora-7.x-1.11.zip
# mv islandora-7.x-1.11 islandora
# chown -R www-data:www-data islandora
```

- Change the permissions on Drupal sub-directories to match the webserver daemon and restart tomcat:

fix permissions

```
# cd /var/www/drupal/sites/all
# chown -R www-data:www-data *

# $FEDORA_HOME/tomcat/bin/shutdown.sh
# $FEDORA_HOME/tomcat/bin/startup.sh
```

- Enable the uploaded module by navigating to **base-site-url/admin/modules**, scrolling down to the Islandora Core Module (in the 'Islandora' category), checking the box to the left of it, and then scrolling to the bottom of the page and clicking the 'Save configuration' button.

ENABLED	NAME	VERSION	DESCRIPTION	OPERATIONS
<input checked="" type="checkbox"/>	Islandora	7.x-dev	View and manage Fedora objects Requires: Image (enabled), File (enabled), Field (enabled), Field SQL storage (enabled)	Permissions Configure

Save configuration

Configuring the Islandora Module

Once installed, configuration options for the Islandora module can be found on your site at <http://path.to.your.site/admin/islandora/configure>. The configuration panel is depicted in the screenshot below.

The screenshot shows the 'General Configuration' section of the Islandora module configuration page. It includes fields for 'Fedora base URL' (set to 'http://localhost:8080/fedora') and 'Root Collection PID' (set to 'islandora:root'). There are also several checkboxes for advanced settings like 'Generate/preserve datastream HTTP cache headers', 'Defer derivative generation during ingest', 'Show print option on objects', and 'UUID PID Generation'. A 'Save configuration' button is at the bottom.

Section	Field/Option	Value/Status
General Configuration	Fedora base URL *	http://localhost:8080/fedora
	Root Collection PID *	islandora:root
Advanced Settings	Generate/preserve datastream HTTP cache headers	<input checked="" type="checkbox"/>
	Defer derivative generation during ingest	<input type="checkbox"/>
	Show print option on objects	<input type="checkbox"/>
	UUID PID Generation	<input type="checkbox"/>

Islandora also defines a number of Drupal **Permissions** for viewing or managing Islandora objects. By default, these are not granted to any user other than Admin (user 1). To allow other users to see the Islandora repository or edit objects, they must be granted the permission at <http://path.to.your.site/admin/people/permissions>.

Example: To allow non-logged-in users to see objects in the repository, grant "Anonymous user" the permission to "View repository objects". It is also advisable to grant any permission that "Anonymous user" has to "Authenticated user" as well, otherwise a user may log in and find they lose access to objects they were previously able to see.

Note: When Solr is installed, there is a separate permission to search the Solr index which must be granted in similar fashion to appropriate users - see [Milestone 6](#).

The screenshot shows the 'Permissions' page in Drupal. It lists various permissions for the Islandora module, such as 'View repository objects', 'Edit repository objects', 'Add new repository objects', etc. Each permission has a checkbox and a 'Grant' button. The 'View repository objects' permission is highlighted with a green checkmark.

Permission	Grant
View repository objects	<input checked="" type="checkbox"/>
Edit repository objects	<input type="checkbox"/>
Add new repository objects	<input type="checkbox"/>
Remove repository objects	<input type="checkbox"/>
Manage repository metadata	<input type="checkbox"/>
Manage repository settings	<input type="checkbox"/>
Manage repository users	<input type="checkbox"/>
Manage repository groups	<input type="checkbox"/>
Manage repository roles	<input type="checkbox"/>
Manage repository permissions	<input type="checkbox"/>

The Tuque library installation test from [milestone 4](#) is the green check mark in `/admin/islandora/configure`. It is as simple as that.

Test the Islandora Core Module installation:

- Once Islandora Core is enabled, you should be able to test. Ensure that the 'testing' module is enabled in Drupal (it is not by default), then go to **Configuration > Development > Testing** and click the link.
- This will pop up a new window with a list of tests to run. Scroll down to Islandora, then click the checkbox. Scroll down to the bottom and click "Run Tests". This will take about 30 minutes to run, so go grab a coffee.

Installing the Islandora Basic Collection Solution Pack

- Download the **Basic Collection Solution Pack** from the [Release Notes and Downloads](#) page. Unzip the contents and rename the directory such that the version number is stripped out, then copy it to `/var/www/drupal/sites/all/modules` and change the owner to `www-data`.

Install Basic Collection Solution Packs

```
# cd /opt/downloads
# unzip islandora_solution_pack_collection-7.x-1.11.zip
...
# mv islandora_solution_pack_collection-7.x-1.11 islandora_solution_pack_collection
# cd /var/www/drupal/sites/all/modules
# cp -R /opt/downloads/islandora_solution_pack_collection .
# chown -R www-data:www-data islandora_solution_pack_collection
```

- Now, go into the Drupal modules menu. At the bottom, turn on Basic Collection Solution pack, and save the configuration. Make sure the package is enabled without error. (Note: If using drush, make sure you enable the module as user 1. Otherwise, the default objects will not install correctly.)
- Then go to the main page of the Drupal site. Click the menu link on the bottom left of the screen that says Islandora Repository. You should see a "Islandora Repository" link on the Navigation Pane and a window titled "Top-level Collection".

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Test the Basic Collection Solution Pack installation:

- Once Basic Collection is enabled, you should be able to test. Go to **Configuration > Development > Testing** and click the link.
- This will pop up a new window with a list of tests to run. Scroll down to Islandora, then click the checkbox. Scroll down to the bottom and click "Run Tests".

Installing the Starter Kit

- The Starter Kit is a way to add some very basic functionality to your Islandora repository, so that you can ingest some material and test your installation. For that we chose the Islandora Basic Image Solution Pack and the Islandora PDF Solution Pack. They are very easy to install and have very few dependencies.
- Download the **Islandora Basic Image Solution Pack** and the **Islandora PDF Solution Pack** from the [Release Notes and Downloads](#) page. Unzip the contents and rename them without the version numbers, then copy them to `/var/www/drupal/sites/all/modules` and change the owner to `www-data`.

Install the Starter Kit

```
# cd /opt/downloads
# unzip islandora_solution_pack_image-7.x-1.11.zip
...
# unzip islandora_solution_pack_pdf-7.x-1.11.zip
...
# mv islandora_solution_pack_image-7.x-1.11 islandora_solution_pack_image
# mv islandora_solution_pack_pdf-7.x-1.11 islandora_solution_pack_pdf
# cd /var/www/drupal/sites/all/modules
```

```
# cp -R /opt/downloads/islandora_solution_pack_image .
# cp -R /opt/downloads/islandora_solution_pack_pdf .
# chown -R www-data:www-data islandora_solution_pack*
```

- Download and install the [ImageMagick Drupal module](#). Note: you *must* use the version for Drupal 7, i.e. 7.x-1.0.

Install the ImageMagick Drupal Module

```
# cd /opt/downloads
# unzip imagemagick-7.x-1.0.zip
# mv imagemagick-7.x-1.0 imagemagick
# cd /var/www/drupal/sites/all/modules
# cp -R /opt/downloads/imagemagick .
# chown -R www-data:www-data imagemagick
```

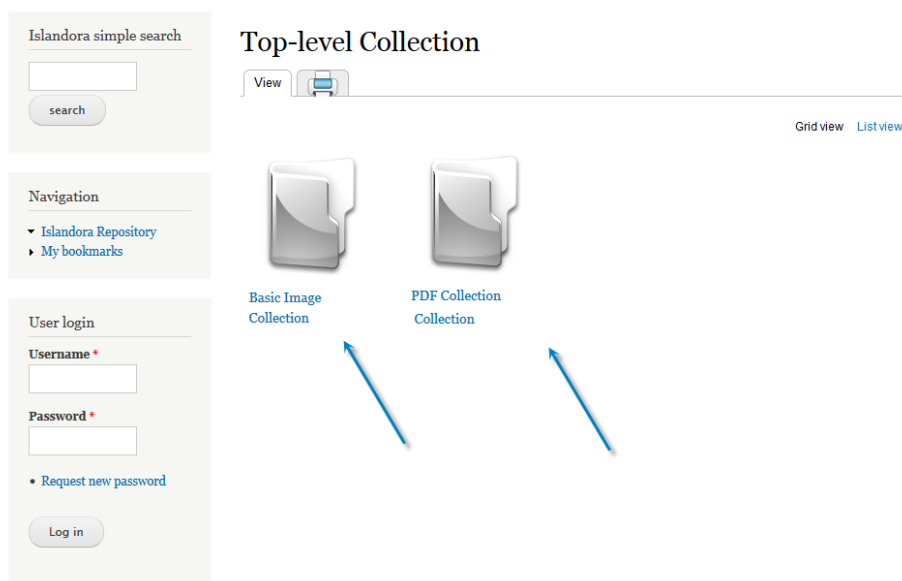
- Install the OS related dependencies for the PDF Solution Pack (imagemagick, pdftotext and ghostscript):

Install dependencies

```
# apt-get install imagemagick
# apt-get install poppler-utils
# apt-get install ghostscript
```

- Enable the Drupal modules. Go into the Drupal modules menu. Turn on Basic Image and and PDF solution packs, and save the configuration. (Note: If using drush, make sure you enable the module as user 1. Otherwise, the default objects will not install correctly.)
- Make sure the packages are enabled without error.
- Go to the main page of the Drupal site. Click the menu link on the bottom left of the screen that says Islandora Repository. You should see in the "Top-level Collection" pane the two folders titled "Basic Image Collection" and "PDF Collection Collection"

[Home](#)



Test the Starter Kit installation

- As with the Islandora Core, you should be able to test both the Basic Image and PDF Collection solution packs.



At the end of this installation, you will be ready to populate your site with some digital assets (images or PDF files) for testing purposes. Your root Islandora repository can be found at **base-site-url/islandora** (Check [How to Add an Item to a Digital Collection](#)). If you can not see the Basic Image Collection or the PDF Collection folders on your Islandora repository then something is wrong with the installation. Please retrace your steps.

Create a milestone 5 snapshot backup:

```
# $FEDORA_HOME/tomcat/bin/shutdown.sh
# /etc/init.d/mysql stop
# /etc/init.d/apache2 stop

# cd /usr/local
# tar -cvzf fedora-milestone5.tar.gz fedora

# cd /var/lib
# tar -cvzf mysql-milestone5.tar.gz mysql

# cd /var/www
# tar -cvzf drupal-milestone5.tar.gz drupal

# /etc/init.d/mysql start
# $FEDORA_HOME/tomcat/bin/startup.sh
# /etc/init.d/apache2 start
```