

# Islandora Solr Settings

## Overview

The **Solr Settings** page has configuration options for searching and displaying Islandora object properties, descriptive metadata, full text, and OCR data stored in Solr.

## Configuration

### Display Profiles

This menu controls how search results are displayed.

**DISPLAY PROFILES**

**Primary display profiles**

[Show row weights](#)

DEFAULT	ENABLED	NAME	MACHINE-READABLE NAME	CONFIGURATION
+ <input type="radio"/>	<input type="checkbox"/>	Bookmark	bookmark	
+ <input checked="" type="radio"/>	<input checked="" type="checkbox"/>	List (default)	default	
+ <input type="radio"/>	<input type="checkbox"/>	Grid	grid	
+ <input type="radio"/>	<input type="checkbox"/>	Table	table	<a href="#">configure</a>

Preferred normal display profile for search results. These may be provided by third-party modules.

**Secondary display profiles**

CSV

RSS

Enabled secondary output/download types for search results.

### Primary display profiles

The primary display profile determines the basic layout of search results on screen. Islandora Solr defines four profiles, but other modules can provide additional profiles.

- **Bookmark** - This is used by the [Islandora Bookmark](#) module, which must be enabled and configured separately, to display search results as a table in which a checkbox appears next to each item for the purpose of bookmarking it.
- **List** - This is the default Islandora display profile. This displays all fields available unless you check "Limit results to fields listed above?" and specify in the **Default display settings** which fields you want displayed.
- **Grid** - This displays the thumbnail and title field of every item in the results (similar to how collections are displayed by default).
- **Table** - This displays results as a table, with a column for each Solr field configured in the **Default display settings** menu. This profile can be configured under the **Table Profile Settings** tab.

If you enable multiple display profiles, to grant your users the choice of switching between them, you will also have to add the **Islandora Displays** block to a region (such as a sidebar, or above the content) in admin/structure/block.

### Secondary display profiles

Secondary display profiles present search results in formats that are more suitable for machine actionability.

- **CSV** - This enables the option to export the search results of a Solr search as a comma-separated file.
- **RSS** - This enables the option to make search results of a Solr search available as an RSS feed. This profile is configured in the **RSS Settings** tab.

These options will place an icon for the respective option next to your Solr search results.

### Default display settings

This section provides options for setting which Solr fields display and how they are to be displayed in search results for the "List" and "Table" display profiles. The "Grid" and "Bookmark" profiles are not affected by these settings.

[To configure which fields display in result sets from "/islandora/repository/" requests, edit the template file islandora-basic-collection.tpl.php in the site's theme.]

**Default display settings**

Sort settings

Facet settings

Advanced search block

Query defaults

Required Solr fields

Other

### Display fields Show row weights

SOLR FIELD	SETTINGS	OPERATIONS
✚ mods_titleInfo_title_s		<a href="#">configure</a> <a href="#">remove</a>

**Add another item**

Add

Set labels for Solr fields to be included in the search results.

Limit results to fields listed above?

If checked, results displayed will be limited to the fields specified above. The order of the display fields is only enforced when this is enabled.  
**Note:** some display profiles may not honour this value.

**Results per page**

20

Default number of results to show per page.

**Advanced results per page**

Comma separated list of integers to increase or decrease results per page.

Enable search navigation block

Add navigation params to object links.

**Field value separator**

Characters to separate values in multivalued fields. If left empty it will default to ", ".

**Truncated field value separator**

<br />

Characters to separate truncated values in multivalued fields. If left empty it will default to line break.

## Display fields

Specify which metadata fields from Solr's index to display for each item in search results.

1. In the "Add another item" box, begin typing a Solr field name (the box will provide suggestions as you type). You may use multi-valued Solr fields. See [Appendix D](#) for a list of eligible field names.
2. Click **Add** to add the field to the display.
3. Once a field has been added, click **Configure** for more options. Different Solr field types will have different options for configuration.
  - a. **Label:** Enter a user-friendly display label to represent the field in the search results.
  - b. **Linking:** Link this field to the object it describes (use for fairly unique values, like titles or identifiers). With some fields it can be used as a link to perform a new Solr search based on the value of the field (such as author names, subject terms, or series titles for a related items search).
  - c. **Highlight:** Check this box to enable highlighting the search term in the field(s) where it is found (keyword in context). Only works on tokenized Solr fields. See [Appendix D](#) where this is explained.
  - d. **Maximum length:** Truncate field values in the search results display. Especially useful for potentially long fields such as notes, descriptions, and full text fields.
  - e. **Permissions:** Specify user roles that should have access to this field.

## Configure Display fields

## Configure field: mods\_titleInfo\_title\_s

### Label

Title

A human-readable name.

### Linking

- None
- Link this field to the object's page.
- Link the value to a Solr search result. (NOTE: Will likely break with very large values.)

Highlight

If a match is found on this field, the search term will be highlighted.

**Note:** Only text that has been both indexed and stored may be highlighted. While highlighting on non-tokenized fields is possible, the best results are achieved using tokenized fields. This checkbox may be grayed out if the Solr field cannot be highlighted.

### ▼ MAXIMUM LENGTH

**Note:** Truncation can lead to unexpected results when used in secondary display profiles such as CSV and RSS.

#### Truncation Type

- Limit length of each separate value
- Limit Length of the whole field

#### Maximum Length

0

Maximum field length to render for display. A setting of 0 (default) renders the entire value.

When truncating based on the whole field the max length may be exceeded by the length of ellipsis string.

### ▼ PERMISSIONS

- Enable permissions

#### Permissions

- anonymous user
- authenticated user
- administrator

Select which roles can access this field.

**Note:** checkboxes may be grayed out for roles which do not have permission to search the Solr index.

## Limit results to field listed above?

Check this box to limit the fields displayed to only those specified in **Display fields**. This setting will affect the "List" and "Table" display only. The "Grid" display is fixed. To configure the metadata for the "Bookmark" display see [Islandora Bookmark](#).

## Results per page

Enter a number for how many objects should appear on each page of search results.

Caveat: The following are recently added settings not yet described in this document:

- **Advanced results per page**
  - Lets you offer users that choice of how many items in a results set to display on a page, say, "10,20,50,100".
  - The options appear as bullet list of links in a block.
  - You can expose this function to users by adding the **Islandora search result limit** block to a region in admin/structure/block.
- **Field value separator**
  - Specify here what character(s) you want to appear between values in the multivalued fields set up in the **Display fields** section above.
  - If left empty it will default to ", ".

- **Truncated field value separator**

- If you have very long values in any of your multivalued fields, you can specify here how to separate them.
- The default is set to "<br />", but if left empty it will default to line break.

## Enable search navigation block

Check this box to enable a block that gives users a previous/next browse through search results after selecting an item, as well as an option to return to the main list of search results.

You can expose this function to users by adding the **Islandora search navigation** block to a region in admin/structure/block.

## Sort settings

This menu lets you select fields that users can manipulate themselves to re-order the items on a search results page. These fields can be metadata fields or item properties ("fgs\_" type fields) and those fields don't even have to be displayed fields. Or you can just specify relevancy.

The fields must not be multivalued fields in Solr. For more on this see [Appendix D](#).

The default sort field is "score" which is a relevancy ranking based on how well the search query matches each result. The way that different fields are valued is configurable in Solr.

You can expose the sort fields to users by adding the **Islandora sort** block to a region (such as a sidebar) in admin/structure/block.



SOLR FIELD	SETTINGS	OPERATIONS		
+	score	Label: Relevancy	configure	remove
+	fgs_createdDate_dt	Label: Recently Added	configure	remove

**Add another item**

## Facet settings

This is where you can specify terms that users can choose to help narrow down a result set to only those items that match that term, such as a specific subject heading, or were created by a specific author, or are of a certain type, or are within a certain date range.

Facet fields must be non-tokenized strings in Solr. For more on this see [Appendix D](#). As you type in the fields in "Add another item" the eligible Solr fields will be indicated with the word "(string)."

You can expose the facet to users by adding the **Islandora facets** block to a region (such as a sidebar) in admin/structure/block.

- Default display settings
- Sort settings
- Facet settings
- Advanced search block
- Query defaults
- Required Solr fields
- Other

### Facet fields

[Show row weights](#)

SOLR FIELD	SETTINGS	OPERATIONS
✚ mods_subject_topic_ms	Label: Topics	<a href="#">configure</a> <a href="#">remove</a>
<b>Add another item</b> <input style="width: 90%;" type="text"/> <input type="button" value="Add"/>		

Indicate what fields should appear as **facets**.  
**Note:** it is recommended to use non-tokenized Solr fields (full literal strings).

**Minimum limit**  
  
 The minimum number of results required to display a facet

**Soft limit**  
  
 The number of results which should be displayed initially. If there are more, then the a "Show more" button will allow the rest up to the value below to be displayed. Use 0 to disable.

**Maximum limit**  
  
 The maximum number of terms that should be returned to the user. For example, if there are 100 possible subjects in a faceted result you may wish to only return the top 10.

- **Minimum limit:** There must be at least this number of values in the search results before the facet will display on the search results page. A higher minimum limit will result in fewer facets displaying.
- **Soft limit:** The number of facet values to display before the "Show more" link appears. If you enter 0, all facet values between the minimum and maximum limits will be displayed.
- **Maximum limit:** The maximum number of values to display for each facet. Entering 20 would display the 20 most frequently occurring values in each facet and a "Show more" link would be automatically added to provide access to the rest of the values.

## Configure Facet Fields

You can now choose between having the facets display in the order of most frequent to least frequent and having them display alphabetically. This works for date facets as well.

**Replace PID with Object Label** - if the values in this Solr field are identifiers for objects in Islandora in the form of PIDs (e.g. islandora:collection\_x) or URIs (e.g. info:fedora/islandora:collection\_x), enabling this option will show those objects' labels (e.g. Collection X) instead.

## Configure field: mods\_subject\_topic\_ms

### Label

A human-readable name.

### Sort by

- Count of facet (numerically)
- Text labels (alphabetically)

Facets can be sorted by text label or the count of the facet. If you sort by text labels AND replace PID with object label your sort order is not guaranteed.

### PERMISSIONS

Enable permissions

#### Permissions

- anonymous user
- authenticated user
- administrator

Select which roles can access this field.

**Note:** checkboxes may be grayed out for roles which do not have permission to search the Solr index.

Replace PID with Object Label

Replace a PID (islandora:foo) or a URI (info:fedora/islandora:foo) with that object's label. Will only work with non-tokenized Solr fields (full literal strings).

## Advanced search block

This is where you can build search queries that target specific Solr fields. The "Islandora simple search" block, by contrast, searches across a broad set of fields which you can configure here under Query defaults > Query fields.

Advanced search fields should be tokenized fields in Solr. All Dublin Core fields, for example, are tokenized. For more on this see [Appendix D](#).

- Default display settings
- Sort settings
- Facet settings
- Advanced search block
- Query defaults
- Required Solr fields
- Other

### Search terms Show row weights

SOLR FIELD	SETTINGS	OPERATIONS
+	mods_titleInfo_title_t Label: Title	configure remove
+	PID	configure remove

**Add another item**

Indicates what fields should appear in the dropdown menu of terms for the **Advanced Search Block**.  
**Note:** it is recommended to use tokenized fields and non-tokenized string fields will not match correctly.

### Default boolean operator

User-configurable

AND

OR

Select a default boolean operator for the search query. Selecting "User-configurable" exposes a dropdown menu which gives the user a choice between AND, OR and NOT.

Allow Preservation of Filters  
Allow users to preserve filters when changing their search.

Human-friendly Current Query  
Use labels instead of raw field names when displaying an advanced search in the Current Query block.

Escape Lucene special characters  
Allow the use of lucene syntax string escaping on search terms

### Default boolean operator

"User-configurable" means to let the user choose the boolean operator between the search terms.

Set "AND" or "OR" as the default boolean operator.

- "ALL" means every term in the search query must be found.
- "OR" means any of the terms in the search query can be found.

For example:

- **AND:** (Title = report) AND (Creator = Department of Communications) will return only objects that have "report" in the title and were created by the Department of Communications
- **OR:** (Title = report) OR (Creator = Department of Communications) will return all objects that have "report" in the title as well as all objects created by the Department of Communications

You expose the **Advanced search** to users by adding the **Islandora advanced search** block to a region in admin/structure/block.

TIP: To present the **Advanced search block** on its own page, add the block to the "Content" theme region (the main section on a page). Then create a new Drupal node and set the **Advanced search block** to display on only that node.

Caveat: The following are recently added settings not yet described in this document:

- **Allow Preservation of Filters**
  - If checked, this option will display a checkbox in the **Islandora advanced search** block. After a user performs a Solr search and has selected a facet to filter the search results, they can perform a new Solr search and preserve that facet selection by checking the "Preserver Filters" checkbox.
  - The checkbox is not sticky and must be selected for each search performed.
  - You must have the **Islandora advanced search** block enabled in a Drupal page region.
- **Human-friendly Current Query**
  - If checked, this option will convert a Solr query into a more readable version.
  - To see this in action you need to enable the **Islandora query** block.
  - So, for example, instead of displaying "mods\_titleInfo\_title\_t:(correspondence)" the query would appear as "Title:(correspondence)".
- **Escape Lucene special characters**
  - If you need a description of this field you probably should not be using it. 😊

### Query defaults

This menu contains settings that apply to all Solr queries in Islandora.

**Limit results to specific namespaces** - Installations of Islandora that have namespace restrictions must enter the namespaces here to restrict the search results to only the relevant namespaces. You can enter more than one namespace.

**Sort field for default query** - Example: To set the Solr field for the MODS title element as the sort field with the ascending order specified, add this: `mods_titleInfo_title_s asc`

- Be careful with the "Solr field for default query" because it doesn't check to see if the field actually exists in Solr. The Solr field must not be a multivalued Solr field, thus, it cannot be a Dublin Core field. Note also that this setting requires "asc" or "desc" in addition to the Solr field name.

**Solr base filter** - Example: To prevent collection-level objects from appearing in Solr search result sets, you could add this: `-RELS_EXT_hasModel_uri_s:"info\:fedora\vislandora\:collectionCModel"`

**Query fields** - Example: To get Solr to search the OCR datastream, you could append this to the default list: `OCR_t`

- Default display settings
- Sort settings
- Facet settings
- Advanced search block
- Query defaults
- Required Solr fields
- Other

**Limit results to specific namespaces**

Enter a space- or comma-separated list of namespaces (for example, 'demo, default') to restrict results to PIDs within those namespaces.

**Solr default query**

\*:\*

A default query used to browse Solr results when no explicit user query is set. Setting a useful default query allows the use of Solr to browse without having to enter a query. This may be used in conjunction with a background filter below.  
Consider using `fgs_createdDate_dt:[* TO NOW]` or `*:*`

Use default query for empty advanced searches too  
When selected, an empty advanced search will perform the same as an empty simple search. If not selected, empty advanced searches will search `*:*`

**Sort field(s) for search results**

Indicates which field(s) should define the sort order for the search results.  
For example: `score desc, fgs_createdDate_dt desc` will sort first by score, then by ingest date.  
**Note:** only single-valued fields are sortable. Sorting by fields other than "score" will affect relevance.  
For more information, see "sort" as discussed in the "Common query parameters" section of the [Solr documentation](#).

**Solr base filter**

Lists base filters that are appended to all user queries. This may be used to filter results and facilitate null-query browsing. Enter one filter per line.  
These filters will be applied to all queries in addition to any user-selected facet filters

**Query fields**

`dc.title^5 dc.subject^2 dc.description^2 dc.creator^2 dc.contributor^1 dc.type`

Query fields to use for DisMax (simple) searches. See the QueryFields section in the [Solr documentation](#) for examples.

Prefer defined query fields?  
Use the above "Query fields" by default; otherwise, they will only be used as a fallback in the case there are none defined in the selected request handler.

Save Solr configuration    Reset to defaults

## Required Solr fields

This menu specifies which fields Solr uses to create the default repository browse result set and should probably not be changed.

<b>Default display settings</b>	<p><b>Content model Solr field *</b></p> <input type="text" value="RELS_EXT_hasModel_uri_ms"/> <p>Solr field containing the content model URLs. This should be a multivalued string field</p>
<b>Sort settings</b>	
<b>Facet settings</b>	
<b>Advanced search block</b>	
<b>Query defaults</b>	
<b>Required Solr fields</b>	<p><b>Datastream ID Solr field *</b></p> <input type="text" value="fedora_datastreams_ms"/> <p>Solr field containing the populated datastream IDs. This should be a multivalued string field. If this field is not populated, the DSID of TN will be assumed valid for thumbnails.</p>
<b>Other</b>	<p><b>Object label Solr field *</b></p> <input type="text" value="figs_label_s"/> <p>The Solr field containing an object's label. This should be a single valued string field.</p> <p><b>The isMemberOf Solr field *</b></p> <input type="text" value="RELS_EXT_isMemberOf_uri_ms"/> <p>The Solr field containing an object's isMemberOf relationship</p> <p><b>The isMemberOfCollection Solr field *</b></p> <input type="text" value="RELS_EXT_isMemberOfCollection_uri_ms"/> <p>The Solr field containing an object's isMemberOfCollection relationship</p>

## Other (debugging Solr)

If checked the "Debug mode?" will display the raw text of Solr queries in Islandora's Drupal interface. It should be unchecked on a production site.

<b>Default display settings</b>	<p><b>Solr Luke timeout *</b></p> <input type="text" value="45"/> <p>Number of seconds to set timeout for retrieving fields from Solr's Luke interface. Increase this if autocomplete fields containing Solr field names time out.</p>
<b>Sort settings</b>	
<b>Facet settings</b>	
<b>Advanced search block</b>	
<b>Query defaults</b>	
<b>Required Solr fields</b>	
<b>Other</b>	<p><input type="checkbox"/> Debug mode?</p> <p>Dumps Solr queries to the screen for testing. Warning: if you have the Drupal Apache Solr module enabled alongside this one, the debug function will not work.</p>

Note:

Many of the options configured in the **Solr Settings** menu affect only searches and results sets associated with Solr searches. You can recognize a Solr search by the URL string `/islandora/search/...`. Other types of searches, such as browsing using URLs like `/islandora/repository/` and some like `/islandora/object/...` are not affected by all options set here in **Solr Settings**.