



# DRUPAL SEARCH

July 31, 2018

**PLANNING**

Google

# Ask Questions

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- What type of results should be displayed?
- What content is actually being searched?
- Do I need to filter my searches?
- How are search results going to be displayed?
- Get examples of search.

# SEARCH FACILITIES

# Database Search

- Default Drupal Search.
- Uses SQL queries to search database tables.
- Works well for basic searches.
- Is pretty slow.
- Caches well.

# Solr

- Powerful search server maintained by Apache Foundation.
- Works very well with Drupal and is supported by Acquia.
- Uses the Lucene language to search indexes.
- Content must be “Indexed”, so there is a delay in searching.
- Can search multiple fields, bias/boost results, provide facet searching, etc.
- Can index multiple sites, doesn't have to be Drupal based.

# Google Search Appliance

- End of Life. :(
- Ad Supported

# Other

- AWS Elastic Search (based on Solr).
- Sphinx
- Algolia
- Search API works for everything!

# SEARCH MODULES

# Search API

[https://www.drupal.org/project/search\\_api](https://www.drupal.org/project/search_api)

- Provides a common interface for talking to any number of search backends.
- A back-end provides a module to connect to Search API.
- Is the “go to” search module.

# Search API Solr

[https://www.drupal.org/project/search\\_api\\_solr](https://www.drupal.org/project/search_api_solr)

- Back End for Search API that allows connection to Solr servers.

# Search API Solr

[https://www.drupal.org/project/search\\_api\\_solr](https://www.drupal.org/project/search_api_solr)

- Back End for Search API that allows connection to Solr servers.

# Search API Multilingual Solr

[https://www.drupal.org/project/search\\_api\\_solr\\_multilingual](https://www.drupal.org/project/search_api_solr_multilingual)

- Adds multi-lingual support for Search API Solr!

# Facets

<https://www.drupal.org/project/facets>

- Add filters



The screenshot shows a search results page with two main sections. On the left is a facet titled "Author name" with a list of authors and their book counts. On the right is a search results table with a "Title" header and a list of book titles. Below the facet is a "Show more" link.

**Author name**

- Douglas Adams (5)
- Ernest Hemingway (4)
- George Bernard Shaw (4)
- George Orwell (4)
- J. R. R. Tolkien (4)
- Astrid Lindgren (3)
- Jane Eyre (3)
- P. G. Wodehouse (3)
- Patrick Rothfuss (3)
- Salman Rushdie (3)

[Show more](#)

**Search books**

Displaying 1 - 10 of 101

Title
Pride and Prejudice
The Long, Dark Tea-Time of t
The Salmon of Doubt
Nineteen Eighty-Four
The Wise Man's Fear
The Old Man and the Sea
For the Win
Animal Farm
The Inimitable Jeeves

Facets link in the frontend

# Lots more . . . .

<https://www.drupal.org/node/1999262>

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## Extension modules

*Last updated 7 February 2018. Created on 20 May 2013.*

*Edited by [fundawangcn](#), [beltofte](#), [xSDx](#), [TheodorosPloumis](#). [Log in to edit this page](#).*

This section lists modules that add new backends, plugins or other extensions to the Search API, allowing users to add additional functionality to their sites. Creators of new extension modules are welcome to add their projects to this list, too.

This page also acts as the parent for documentation on those extension modules.

## Modules providing service classes

### **Solr search(7.x, 8.x)**

A backend using an Apache Solr server for indexing and searching, like the popular [Apache Solr Search Integration module](#). It uses dynamic fields for indexing arbitrary entities and boasts far superior indexing- and search-performance, better result accuracy and native facetting support.

### **Multilingual Solr search(8.x)**

An extension of the Solr search backend. It provides sensible default settings for different languages and hides the complexity of defining per language field types within a solr schema. Additionally a lot of fine tuning of the index could be done within drupal instead of editing solr config files manually.

### **Database search(7.x, 8.x is internal module of search\_api module)**

A simple, database-based backend for indexing and searching data. It's neither very fast nor accurate, but it works out of the box and can be used for testing out the Search API capabilities (it even supports facetting), or for smaller sites (or smaller, less important indexes/searches).

**SETUP SEARCH**

## Search API ☆

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » Search api

Below is a list of indexes grouped by the server they are associated with. A server is the definition of the actual indexing, querying and storage engine (for example, an Apache Solr server, the database, ...). An index defines the indexed content (for example, all content and all comments on "Article" posts).

[+ Add server](#)

[+ Add index](#)

TYPE	NAME	STATUS	OPERATIONS
Server	<a href="#">Acquia Search API Solr server</a>	✓	<a href="#">Edit</a> ▼
Index	<a href="#">Acquia Search Solr Index</a>	✓	<a href="#">Edit</a> ▼

Enabled

Only enabled servers can index items or execute searches.

#### Description

Enter a description for the server.

#### Backend \*

Solr

Index items using an Apache Solr search server.

Choose a backend to use for this server.

#### ▼ CONFIGURE SOLR BACKEND

##### Solr server URI

<http://useast1-c26.acquia-search.com:80/solr/GTVY-165631/>

##### Solr Connector \*

Acquia

Basic Auth

Standard

Choose a connector to use for this Solr server.

#### ► CONFIGURE ACQUIA SOLR CONNECTOR

##### ADVANCED

Retrieve result data from Solr

When checked, result data will be retrieved directly from the Solr server. This might make item loads unnecessary. Only indexed fields can be retrieved. Note also that the returned field data might not always be correct, due to preprocessing and caching issues.

Highlight retrieved data

When retrieving result data from the Solr server, try to highlight the search terms in the returned fulltext fields.

Return an excerpt for all results

If search keywords are given, use Solr's capabilities to create a highlighted search excerpt for each result. Whether the excerpts will actually be displayed depends on the settings of the search, though.

Skip schema verification

Skip the automatic check for schema-compatibility. Use this override if you are seeing an error-message about an incompatible schema.xml configuration file, and you are sure the configuration is compatible.

##### MULTI-SITE COMPATIBILITY

Retrieve results for this site only

Automatically filter all searches to only retrieve results from this Drupal site. The default and intended behavior is to display results from all sites. WARNING: Enabling this filter might break features like autocomplete, spell checking or suggesters!

By default a single Solr backend based Search API server is able to index the data of multiple Drupal sites. But this is an expert-only and dangerous feature that mainly exists for backward compatibility. If you really index multiple sites in one index and don't activate 'Retrieve results for this site only' below you have to ensure that you enable 'Retrieve result data from Solr!' Otherwise it could lead to any kind of errors!

<https://docksal.readthedocs.io/en/master/tools/apache-solr/>

## Enabling Apache Solr service

### Docksal configuration

Add the `solr` service under the `services` section in `.docksal/docksal.yml` :

```
# Solr
solr:
  extends:
    file: ${HOME}/.docksal/stacks/services.yml
    service: solr
```

Apply new configuration with `fin project start` ( `fin p start` ).

Use `http://solr.<VIRTUAL_HOST>/solr` to access the Solr web UI.

### Drupal configuration

Enable all required by your version of Drupal modules for the Apache Solr search integration.

For Apachesolr module add your Solr server using following server url:

```
http://solr:8983/solr
```

For the Search API module use these values:

Name	Value
Protocol	<code>HTTP</code>
Host	<code>solr</code>
Port	<code>8983</code>
Solr path	<code>/solr</code>
Solr core	<code>collection1</code>

# Acquia Search Solr Index ☆

[View](#)[Edit](#)[Fields](#)[Processors](#)

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » [Search api](#) » Acquia search index

## ACQUIA SEARCH STATUS FOR THIS CONNECTION

Connection managed by Acquia Search module.

- search\_api\_solr.module server ID: acquia\_search\_server
- URL: http://useast1-c26.acquia-search.com:80/solr/GTVY-165631
- Acquia Search module automatically selected the proper Solr connection based on the detected environment.
- Solr core is currently reachable and up.
- Requests to Solr core are passing authentication checks.

## Index status



<b>Status</b>	enabled ( <a href="#">disable</a> )
<b>Datasource</b>	Content (1345/3525 indexed)
<b>Tracker</b>	Default
<b>Server</b>	<a href="#">Acquia Search API Solr server</a>
<b>Server index status</b>	There are 1129 items indexed on the server for this index. ( <a href="#">More information</a> )
<b>Cron batch size</b>	During cron runs, 50 items will be indexed per batch.

### ▼ START INDEXING NOW

Index  items in batches of  items [Index now](#)

[Queue all items for reindexing](#) [Clear all indexed data](#) [Rebuild tracking information](#)

# Edit search index *Acquia Search Solr Index* ☆

[View](#)[Edit](#)[Fields](#)[Processors](#)

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » [Search api](#) » [Acquia search index](#) » Edit

## Index name \*

Machine name: acquia\_search\_index

Enter the displayed name for the index.

## Data sources \*

 Brick

Provides *Brick* entities for indexing and searching.

 Comment

Provides *Comment* entities for indexing and searching.

 Content

Provides *Content* entities for indexing and searching.

 Custom block

Provides *Custom block* entities for indexing and searching.

 Custom menu link

Provides *Custom menu link* entities for indexing and searching.

 File

Provides *File* entities for indexing and searching.

 Links

Provides *Links* entities for indexing and searching.

 Media

Provides *Media* entities for indexing and searching.

Select one or more data sources of items that will be stored in this index.

► CONFIGURE THE *CONTENT* DATASOURCE

► CONFIGURE THE *DEFAULT* TRACKER

## Server

 - No server - Acquia Search API Solr server

Select the server this index should use. Indexes cannot be enabled without a connection to a valid, enabled server.

 Enabled

Only enabled indexes can be used for indexing and searching. This setting will only take effect if the selected server is also enabled.

## Description

## Manage fields for search index *Acquia Search Solr Index* ☆

[View](#)[Edit](#)[Fields](#)[Processors](#)

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » [Search api](#) » [Acquia search index](#) » [Fields](#)

[+ Add fields](#)

The data type of a field determines how it can be used for searching and filtering. The boost is used to give additional weight to certain fields, for example titles or tags.

For information about the data types available for indexing, see the [data types table](#) at the bottom of the page.

### ▼ GENERAL

LABEL	MACHINE NAME	PROPERTY PATH	TYPE	BOOST	OPERATIONS
<input type="text" value="Rendered HTML output"/>	<input type="text" value="rendered_item"/>	rendered_item	<input type="text" value="Fulltext"/>	<input type="text" value="1.0"/>	<a href="#">Edit</a> <a href="#">Remove</a>

### ▼ CONTENT

LABEL	MACHINE NAME	PROPERTY PATH	TYPE	BOOST	OPERATIONS
<input type="text" value="Title"/>	<input type="text" value="title"/>	title	<input type="text" value="Fulltext"/>	<input type="text" value="1.0"/>	<a href="#">Remove</a>
<input type="text" value="Content type"/>	<input type="text" value="type"/>	type	<input type="text" value="String"/>		<a href="#">Remove</a>
<input type="text" value="Product category"/>	<input type="text" value="field_product_category"/>	field_product_category	<input type="text" value="Integer"/>		<a href="#">Remove</a>
<input type="text" value="Brand"/>	<input type="text" value="field_product_brand"/>	field_product_brand	<input type="text" value="Integer"/>		<a href="#">Remove</a>
<input type="text" value="Meal"/>	<input type="text" value="field_product_meal"/>	field_product_meal	<input type="text" value="Integer"/>		<a href="#">Remove</a>
<input type="text" value="Kitchen Equipment"/>	<input type="text" value="field_product_kitchen_equipment"/>	field_product_kitchen_equipment	<input type="text" value="Integer"/>		<a href="#">Remove</a>
<input type="text" value="Cooked state"/>	<input type="text" value="field_product_cooked_state"/>	field_product_cooked_state	<input type="text" value="Integer"/>		<a href="#">Remove</a>

## Add view

[Home](#) » [Admin](#) » [Structure](#) » [Views](#) » Add

### VIEW BASIC INFORMATION

View name \*

Machine name: my\_search [\[Edit\]](#)

Description

### VIEW SETTINGS

Show:  sorted by:

### PAGE SETTINGS

Create a page

### BLOCK SETTINGS

Create a block

[Save and edit](#)

[Cancel](#)

## Displays

Page + Add Edit view name/description

Display name: Page View Page

<b>TITLE</b> Title: <span>Products</span>	<b>PAGE SETTINGS</b> Path: <span>/search</span> Menu: <span>No menu</span> Access: <span>None</span>	<b>▶ ADVANCED</b>
<b>FORMAT</b> Format: <span>Unformatted list</span>   <span>Settings</span> Show: <span>Rendered entity</span>   <span>Settings</span>	<b>HEADER</b> <span>Add</span> <span>Global: Result summary (Global: Result summary)</span>	
<b>FIELDS</b> The selected style or row format does not use fields.	<b>FOOTER</b> <span>Add</span>	
<b>FILTER CRITERIA</b> <span>Add</span> <span>Search: Fulltext search (and )</span> <span>Index Acquia Search Solr Index: Hide deleted products (and )</span> <span>Index Acquia Search Solr Index: Hide sales view only pages (and )</span> <span>Index Acquia Search Solr Index: Filter Offer Dates (and )</span>	<b>NO RESULTS BEHAVIOR</b> <span>Add</span> <span>Global: Text area (Global: Text area)</span>	
<b>SORT CRITERIA</b> <span>Add</span> <span>Content datasource: Promoted to front page (desc)</span> <span>Search: Relevance (desc)</span>	<b>PAGER</b> Use pager: <span>Full</span>   <span>Paged, 50 items</span> More link: <span>No</span>	

Save Cancel

**WHAT TO SEARCH**

Select one or more data sources of items that will be stored in this index.

▼ CONFIGURE THE *CONTENT* DATASOURCE

▼ BUNDLES

Which bundles should be indexed?

- Only those selected
- All except those selected

Bundles

- Announcement
- Article
- Confirmation Message
- Document
- eNews
- Menu Inspiration
- Menu Inspiration (landing page)
- Offer
- Basic page
- Pre-Order Deal
- Product
- Product hub
- Promotion material
- Rebate
- Segment
- Special Offer
- Webform

▼ LANGUAGES

## Manage processors for search index *Acquia Search Solr Index* ☆

[View](#)[Edit](#)[Fields](#)[Processors](#)

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » [Search api](#) » [Acquia search index](#) » Processors

Configure processors which will pre- and post-process data at index and search time.

### ENABLED

Content access

Adds content access checks for nodes and comments.

Entity status

Exclude inactive users and unpublished entities (which have a "Published" state) from being indexed.

		field_name	String		Remove
Promoted to front page	promote	promote	Boolean		Remove
Body	field_body	field_body	Integer		Remove
Description	field_product_description	field_product_description	Fulltext	8.0	Remove
Product Details	field_product_details	field_product_details	Fulltext	5.0	Remove
Name	field_name	field_name	Fulltext	21.0	Remove

► DATA TYPES

Save changes

Configure processors which will pre- and post-process data at index and search time.

#### ENABLED

- Content access  
Adds content access checks for nodes and comments.
- Entity status  
Exclude inactive users and unpublished entities (which have a "Published" state) from being indexed.
- Highlight  
Adds a highlighted excerpt to results and highlights returned fields.
- HTML filter  
Strips HTML tags from fulltext fields and decodes HTML entities. Use this processor when indexing HTML data – for example, node bodies for certain text formats. The processor also allows to boost (or ignore) the contents of specific elements.
- Ignore case  
Makes searches case-insensitive on selected fields.
- Ignore characters  
Configure types of characters which should be ignored for searches.
- Index hierarchy  
Allows the indexing of values along with all their ancestors for hierarchical fields (like taxonomy term references)
- Stemmer  
Stems search terms (for example, *talking* to *talk*). Currently, this only acts on English language content. It uses the Porter 2 stemmer algorithm ([More information](#)). For best results, use after tokenizing.
- Stopwords  
Allows you to define stopwords which will be ignored in searches. **Caution:** Only use after both 'Ignore case' and 'Tokenizer' have run.
- Tokenizer  
Splits text into individual words for searching.
- Transliteration  
Makes searches insensitive to accents and other non-ASCII characters.
- Type-specific boosting  
Adds a boost to indexed items based on their datasource and/or bundle.
- UPC Formatter  
Pre-processes the search query to format old UPC codes to new format

#### PROCESSOR ORDER

**CONTROLLING SEARCH**

---

SHOWING 1 - 50 OF 1129 RESULTS

## Browse Results

---

Poultry (14)

Mexican Products (10)

Hospitality (4)

Convenience (3)

Healthcare (2)

Bacon (1)

---

## Filter Results

---

### MEAL



Dinner

Lunch

Snack

Breakfast

---

## Facets

[Home](#) » [Admin](#) » [Config](#) » [Search](#) » Facets

Below is a list of facets grouped by facetsources they are associated with. A facetsource is the instance where the facet does the actual filtering, for example a View on a Search API index.

The facets weight can be changed with drag and drop within the same facet source. Although you can drag and drop a facet under any facet source, this change will not be performed on save.

[+ Add facet](#)

[Show row weights](#)

TYPE	TITLE	OPERATIONS
Facet source	search_api:views_page__acquaia_search__page	<a href="#">Configure</a>
Facet source	search_api:views_page__product_search__page_1	<a href="#">Configure</a>
 Facet	<a href="#">Brand</a> field_product_brand - checkbox	<a href="#">Edit</a> 
 Facet	<a href="#">Browse results</a> field_product_category - links	<a href="#">Edit</a> 
 Facet	<a href="#">Cooked state</a> field_product_cooked_state - checkbox	<a href="#">Edit</a> 
 Facet	<a href="#">Cuisine</a> field_product_cuisine - checkbox	<a href="#">Edit</a> 

**Widget \***

- List of icons
- Three state toggle switch
- List of checkboxes
- Array with raw results
- List of links
- Dropdown

The widget used for displaying this facet.

**SETTINGS**

- Show the amount of results

**Soft limit**

No limit ▼

Limit the number of displayed facets via JavaScript.

**FACET SETTINGS**

- Count limit  
Show or hide depending on the number of results.
- Date item processor  
Display dates with granularity options for date fields.
- Dependent facet  
Display this facet depending on the state of another facet.
- Exclude specified items  
Exclude items depending on their raw or display value (such as node IDs or t
- Granularity item processor  
List of numbers grouped in steps.
- Hide active items  
Do not display items that are active.
- Hide facet with 1 result  
When the facet has only one result, it will be hidden
- Hide non-narrowing results  
Only display items that will narrow the results.
- List item label  
Display the label instead of the key of fields that are a list (such as *List (integ*  
break this functionality.
- Show only deepest item levels  
Only show items that have no children.
- Transform entity ID to label

AND filters are exclusive and narrow the result set. OR filters are inclusive and widen the result set.

**Hard limit**

No limit ▼

Display no more than this number of facet items.

- Exclude  
Exclude the selected facets from the search result instead of restricting it to them.
- Use hierarchy  
Renders the items using hierarchy. Make sure to enable the hierarchy processor on the [Search api index](#)  
**At this moment only hierarchical taxonomy terms are supported.**

**Minimum count \***

1

Only display the results if there is this minimum amount of results.

**Weight \***

-7

This weight is used to determine the order of the facets in the URL if pretty paths are used.

**FACET SORTING**

- Sort by active state  
Sorts the widget results by active state.
- Sort by count  
Sorts the widget results by count.  
**Sort order**
  - Ascending
  - Descending
- Sort by display value  
Sorts the widget results by display value.  
**Sort order**
  - Ascending
  - Descending
- Sort by raw value  
Sorts the widget results by raw value.
- Sort by taxonomy term weight  
Sorts the widget results by taxonomy term weight. This sort is only applicable for term-based facets.

► **ADVANCED SETTINGS**

Save

**DISPLAY SEARCH**

Home • Search

*Search*



---

Search:

PRODUCTS (766)

ARTICLES (9)

---

[https://tysonfoodservice.prod.acquia-sites.com/search?search\\_api\\_fulltext=philly%20cheese](https://tysonfoodservice.prod.acquia-sites.com/search?search_api_fulltext=philly%20cheese)

**COOKED STATE**

Unprepared

**BRAND**

- Tyson®
- Mexican Original®
- Heritage valley
- Regional chain
- Jimmy Dean®
- Tyson picture
- Ty nat acct
- Hillshire Farm®
- ibp®
- Wright®
- Russer
- Brandywine
- Wilson foodservi
- Commodity reproc
- Wunderbar
- American favorite
- Bonici regional chains

**DIETARY NEEDS**

0g Trans Fat  
 No MSG  
 Calorie Smart  
 KOSHER  
 No Gluten  
 All Natural

**Restaurant**

<https://tysonfoodservice.prod.acquia-sites.com/your-channel/restaurant>

**UPC CODE: 00023700025531**  
**PRODUCT CODE: 038353-0928**

Tyson® Red Label™ NAE Fully Cooked, Roasted Chicken Breast Filets with Rib Meat, 40 target/4 oz target, 10 lbs

by: [Tyson®](#)

•Better Prices. Save up to 20% on comparable chicken products you currently menu. •Better Flavor. No artificial aftertastes commonly associated with other fully cooked chicken items. •Better Performance.



**UPC CODE: 00023700025722**  
**PRODUCT CODE: 038382-0928**

Tyson® Red Label™ NAE Uncooked, Hot 'n Spicy Chicken Breast Pattie Fritters, 48-52 pieces, 10 lbs

by: [Tyson®](#)

•Better Prices. Save up to 20% on comparable chicken products you currently menu. •Better Flavor. Fine-tuned to deliver the perfect balance of breading to chicken, the right texture, and the perfect color. •Better Performance.



**UPC CODE: 00023700025739**  
**PRODUCT CODE: 038383-0928**

Tyson® Red Label™ NAE Homestyle Chicken Breast Tenders, 109-119 pieces, 10 lbs

by: [Tyson®](#)

•Better Prices. Save up to 20% on comparable chicken products you currently menu. •Better Flavor. Fine-tuned to deliver the perfect balance of breading to chicken, the right texture, and the perfect color. •Better Performance.



## Manage display

+ Add group

Edit Manage fields Manage form display **Manage display** Devel

Default **Search index** Teaser

Show row weights

FIELD	LABEL	FORMAT		
 Left		HTML element ▼	Extra CSS classes: left Element: div	delete ⚙
 Search Teaser Image	- Hidden - ▼	Rendered entity ▼	Rendered as Search Page	⚙
 right		HTML element ▼	Extra CSS classes: right Element: div	delete ⚙
 Display Title				
 Search Teaser	- Hidden - ▼	Trimmed ▼	Trimmed limit: 230 characters	⚙
<b>Disabled</b>				
 Body	Above ▼	Trimmed ▼		

---

Search Teaser

field\_search\_teaser

Text (formatted, long)

Edit



---

Search Teaser Image

field\_search\_teaser\_image

Entity reference

Edit



**CACHING!**

- Search pages are just GET
- Varnish Cached
- Views Cached

**THANKS!**