How to Search in CamTools 2.5 – Full Information

This document gives full details of how to use the Search functionality within CamTools. It is intended for people who want to make a more specialised use of Search, or who have used Lucene-based search before, and want to check the syntax in CamTools. If you want a quick introduction to using Search, why not have a look at the 'Quick Guide to Search' (available from the Help & Support pages in CamTools).

CamTools uses the Lucene search engine together with Dr Martin Porter's Snowball stemmer.

Search will find documents within your CamTools site (including the text within Word documents, PDF files, Excel files, etc, and any associated metadata), as well as wiki pages, chat messages, announcements and emails in the Email Archive.

Search will not search the forums, syllabus, calendar, assignments or blog entries.

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Searching

To search, simply enter the words that you want to search for in the Search box (on the top right-hand side of every page) and press the Return / Enter key.

By default, you will see the results from all sites you belong to in CamTools.

To see only the results from a particular site, go to the site and then enter the words in the Search box and press Return. You will see a second tab appear in the search results box, with the name of the current site. Click on this tab to see results from the current site only.
Why you get the results you do

The Search tool uses Dr Martin Porter's Snowball stemmer to recognise words related to the terms you entered and to search for these too. For example, if you search for 'bear', documents including the term 'bears' will also be listed. Moreover, it will attempt to find different parts of speech related to your original term - so searching for 'sustainability' will also find 'sustainable'. However, occasionally the algorithm goes too far, and mistakenly matches words - so searching for 'herrings' will also find 'her', which is not what you want! If you notice any words like this, please let us know (by emailing camtools@caret.cam.ac.uk) so we can add them to the list of exceptions.

The Search tool will ignore frequently occurring terms like 'I' or 'the'.

If you enter multiple terms in the Search box, by default, you will see a list of pages containing any of your search terms (i.e. an 'OR' search). To change this, see 'OR', 'AND' and 'NOT', below.

Searching for particular phrases

To search for a particular phrase, enclose it in double quotes like these: ".

Thus, searching for "University of Cambridge" will not list results containing "University" or "Cambridge" alone.

However, be aware that even using double quotes, the standard search rules given above still apply - so words like 'in' or 'the' will be ignored. Thus, searching for "University of Cambridge" will also find "University in Cambridge".

Moreover, the Search tool will still attempt to find words related to each of the terms in your search phrase. Thus, searching for "University of Cambridge" will also find "universal in Cambridge".

Using OR

By default, if you include several terms in your search, the OR operator is used ('OR' must be written in capitals). This means that pages will be displayed in the results if they contain any of the terms returned. Terms containing all or both search terms will be displayed at the top of the list.

The symbol || can be used in place of the word OR.

To search for documents that contain either 'Peter Grimes' or 'Troilus and Cressida' use the query:

• "Troilus and Cressida" OR "Peter Grimes"

or simply

• "Troilus and Cressida" "Peter Grimes"

Using AND

The AND operator displays results where both terms exist anywhere in the text of a single document ('AND' must be written in capitals).

The symbol '&&' can be used in place of the word 'AND'.

To search for documents that contain 'William Walton' and 'Troilus and Cressida' use the query:

• "William Walton" AND "Troilus and Cressida"
**Using NOT**

Using the NOT operator, you can exclude results from pages containing the term after NOT. The symbol `!` can be used in place of the word NOT.

To search for documents that contain 'Troilus and Cressida' but not 'Shakespeare' use the query:

- "Troilus and Cressida" NOT Shakespeare

Note: The NOT operator cannot be used with just one word or phrase. For example, the following search will return no results:

NOT Shakespeare

**Using +**

If you precede a term with "+", results will only be displayed for pages including this term.

To search for documents that must contain 'Walton' and may also contain 'Troilus and Cressida' use the query:

- +Walton "Troilus and Cressida"

**Grouping**

The Search tool allows you to use brackets to group clauses to form subqueries. This can be very useful if you want to control the boolean logic for a query.

To search for either "Cambridge" or "Oxford" and "University" use the query:

- (Cambridge OR Oxford) AND University

This eliminates any confusion and makes sure that the term 'University' must exist in the page and either the term 'Oxford' or the term 'Cambridge' must exist.

**Searching for title or subject only**

To search only in the titles of files and subjects of announcements, emails and wiki pages, precede your search term with "title:"

Thus, "title:University" will only search for the term "University" in the document titles and wiki, email and announcement subjects, not within the file or body of the message or page.

**Searching the contents of specific tools**

You can choose to display the results from a specific tool within CamTools. To do this, precede you search term with “tool:" and the name of the tool you wish to search.

For example to search only in the Announcements tool, you can use the following search:

- tool:announcement Cambridge
This will only list announcements containing the word 'Cambridge'.

<table>
<thead>
<tr>
<th>Tool name</th>
<th>Search term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Announcements</td>
<td>tool:announcement</td>
</tr>
<tr>
<td>Chat</td>
<td>tool:chat</td>
</tr>
<tr>
<td>Email archive</td>
<td>tool:email</td>
</tr>
<tr>
<td>Files &amp; Resources tools</td>
<td>tool:content</td>
</tr>
<tr>
<td>Wiki</td>
<td>tool:wiki</td>
</tr>
</tbody>
</table>

**Field Grouping**

The Search tool allows you to use brackets to use multiple clauses to a single field.

To search for a document title that contains both the word 'Walton' and the phrase 'Troilus and Cressida' use the query:

- title:(+Walton +"Troilus and Cressida")

**Proximity Searches**

The Search tool supports finding words which are a specific distance apart. To do a proximity search use the tilde, "~", symbol at the end of a phrase. For example to search for a "English" and "literature" within 10 words of each other in a document use the search:

- "English literature"~10

**Wildcard Searches**

The Search tool supports single and multiple character wildcard searches.

To perform a single character wildcard search use the "?" symbol.

To perform a multiple character wildcard search use the "*" symbol.

The single character wildcard search looks for terms that match that with the single character replaced. For example, to search for "bear" or "beer" you can use the search:

- be?r

Multiple character wildcard searches looks for 0 or more characters. For example, to search for "bear", "beer" or "beastlier" you can use the search:

- be*r

You cannot use a * or ? symbol as the first character of a search.

**Boosting a Term**

The Search tool displays the results of your search based on the relevance of the pages it finds. To boost the importance of one term within your search, and so display results containing that search at the top of the list, use the "^" symbol after the term.
For example if you are looking for pages about 'Cambridge University' and you want the term 'Cambridge' to be more relevant, you would type:

- Cambridge^ University

This will make documents with the term 'Cambridge' appear towards the top of the list.

**Searching metadata for files in the Resources tool**

Using the Search tool, you can perform searches on Dublin Core metadata attached to files in the Resources tool. (Metadata can be set in the Resources tool by selecting the 'Edit Details' option for the appropriate file, and then clicking the 'Show Optional Properties' link to reveal the Dublin Core metadata fields.)

To do this, prefix the term you want to search for with the appropriate field name, as given below. For example, to search for files containing 'Norway' in the metadata 'subject' field, you would enter

- dc_subject: Norway

If you want to search for files containing 'Norway' or 'Arctic' in the metadata 'subject' field, you would enter

- dc_subject: Norway OR dc_subject: Arctic

<table>
<thead>
<tr>
<th>Metadata field</th>
<th>Search field name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternative title</td>
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</tr>
<tr>
<td>Creator</td>
<td>dc_creator</td>
</tr>
<tr>
<td>Publisher</td>
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</tr>
<tr>
<td>Date created</td>
<td>dc_created</td>
</tr>
<tr>
<td>Date issues</td>
<td>dc_issued</td>
</tr>
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<td>Subject</td>
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</tr>
<tr>
<td>Abstract</td>
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</tr>
<tr>
<td>Contributor</td>
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</tr>
<tr>
<td>Audience</td>
<td>dc_audience</td>
</tr>
<tr>
<td>Audience Education Level</td>
<td>dc_educationlevel</td>
</tr>
</tbody>
</table>

**Escaping Special Characters**

The Search tool supports escaping special characters that are part of the query syntax. The current list of special characters is

+ - && || ! ( ) { } ^ " ~ * ? : To escape these character use the " before the character.

For example to search for '(1+1):2' use the query:

- (1+1):2