Learn how to use Boolean operators to refine your search in FirstSearch.

**Combining search terms (Boolean searching)**

Use the Boolean operators AND, OR, and NOT to combine search terms when you need to expand or narrow a search. Use parentheses ( ) to specify the order in which terms will be combined. In the diagrams below, each circle represents a different search term. The portions retrieved in a search using these terms are shaded.

**AND operator**

AND retrieves only records that contain all search terms. Use this operator to narrow or limit a search.

nepal AND holiday

<table>
<thead>
<tr>
<th>IF YOU TYPE:</th>
<th>FIRSTSEARCH SEARCHES FOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>nepal AND holiday</td>
<td>only records containing both nepal and holiday</td>
</tr>
<tr>
<td>psychology AND menu AND design</td>
<td>only records containing all three search terms--</td>
</tr>
<tr>
<td></td>
<td>psychology, menu, and design</td>
</tr>
</tbody>
</table>

**OR operator**

OR retrieves all records that contain one or both of the search terms. Use this operator to expand a search.

nepal OR holiday
IF YOU TYPE:  

<table>
<thead>
<tr>
<th>nepal OR holiday</th>
<th>FIRSTSEARCH SEARCHES FOR: records containing nepal which do not reference the search term holiday</th>
</tr>
</thead>
<tbody>
<tr>
<td>psychology OR menu OR design</td>
<td>records that contain both psychology and menu but do not include any reference to design</td>
</tr>
</tbody>
</table>

**NOT operator**

NOT eliminates records that include a search term or group of search terms. Use this operator carefully to limit a search, as you may unintentionally eliminate relevant records.

nepal NOT holiday

**Parentheses (nesting)**

Group terms in parentheses to specify the order in which they will be combined. Without parentheses, terms will be combined in left-to-right order. For example, baseball and brewers or twins can be combined with parentheses to give you two distinctly different sets of results.

<table>
<thead>
<tr>
<th>IF YOU TYPE:</th>
<th>FIRSTSEARCH SEARCHES FOR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>baseball AND brewers OR twins</td>
<td>records containing both baseball and brewers, then records containing twins whether or not they contain baseball or brewers</td>
</tr>
<tr>
<td>(baseball AND brewers) OR twins</td>
<td>the same results as above because the parentheses group baseball and brewers first in left-to-right order</td>
</tr>
<tr>
<td>baseball AND (brewers OR twins)</td>
<td>records containing either brewers or twins or both; from</td>
</tr>
</tbody>
</table>
IF YOU TYPE:          FIRSTSEARCH SEARCHES FOR:

this set of records, it then searches for records that contain baseball so that all records contain either brewers and baseball or twins and baseball or brewers and twins and baseball

FirstSearch rules for processing a Boolean search

FirstSearch uses the following rules when processing a search containing AND, OR, or NOT:

- Process AND, OR, or NOT in left-to-right order unless ( ) are used.
- Process AND, OR, or NOT in ( ) first.
- If there is more than one ( ) in a search, process them in left-to-right order.
- If there are ( ) within ( ), process them from innermost to outermost.
- Process two words with only a space between them as if AND was between them and they were enclosed in ( ). For example, civil war OR stone river is processed as (civil AND war) OR (stone AND river).
- On the Advanced search screen, process AND, OR, or NOT typed in a search box as if they were enclosed in ( ). For example, if you type car AND safety in the first search box and air AND bag in the second search box, FirstSearch processes this as (car AND safety) AND (air AND bag).

Additional information

If you want to use AND, OR, or NOT as search terms rather than using them as boolean operators to combine other search terms, use quotation marks. For example, to search for a title containing the phrase night and day, type "night and day" or night "and" day.

Reserved operators

FirstSearch reserves a limited number of terms and characters for special operations. These reserved terms and characters, or operators, indicate that FirstSearch should combine or use words in a particular way. For example, the term and indicates that FirstSearch should retrieve the word before and after the term and but not the term and itself.

If you are searching for words or a phrase that include any of the following reserved operators, you must enclose the reserved operator in quotes to indicate that it should be used as a search term instead of a reserved operator:

<table>
<thead>
<tr>
<th>le</th>
<th>ge</th>
<th>lt</th>
<th>gt</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>near</td>
<td>w</td>
<td>with</td>
</tr>
<tr>
<td>and</td>
<td>or</td>
<td>not</td>
<td>within</td>
</tr>
<tr>
<td>TO SEARCH FOR:</td>
<td>TYPE:</td>
<td></td>
<td></td>
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<tr>
<td>---------------------</td>
<td>--------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jules and Jim</td>
<td>jules &quot;and&quot; jim OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>jules 'and' jim</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leo Le Bon</td>
<td>leo &quot;le&quot; bon OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>leo 'le' bon</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gasherbrum IV:</td>
<td>gasherbrum &quot;iv:&quot; OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>gasherbrum 'iv:'</td>
<td></td>
<td></td>
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</tbody>
</table>