Truncation and Wildcard Operators

To facilitate searching for terms with a common initial spelling, or which may vary by single letter, search systems usually provide at least one operator. The operators are usually represented by a standard character that is neither a letter nor a digit. The most commonly used characters are: *, ?, $, and #.

Some systems provide automatic inclusion of singular and plurals, at least for simple forms when the plural is simply a matter of adding an ‘s’ or ‘es’ to the end of the singular form.

Here are the common functions provided by these operators:

- **Truncation** (infinite)
  Added to the end of an initial string of characters, this cause the retrieval of any record which contains a word beginning with the specified letters and with any, or no, additional characters. Assuming that the truncation operator is *, the following search will retrieve all the words indicated in the graphic at the top of this page:

  \[
  \text{Infant}^* \\
  \]

  which is essentially a short-hand for:

  infant OR infante OR infantellina OR infantes OR infanticidal OR infanticide OR infantil OR infantine OR infantile OR infantilism OR infantis OR infantry OR infantryman OR infantrymen OR infants OR infantum.

  The truncation operator may sometimes be used within a word:

  \[
  \text{sul*ur} \quad \text{for ‘sulfur OR sulphur’} \]
  \[
  \text{neuro*al} \quad \text{for ‘neuronal OR neurological or neurodevelopmental OR neurophysiological OR neuropsychological OR …’} \]

- **Wildcard Character** (exactly one character)
  Often used when a plural is formed by changing one letter, or when a word may has an alternate spelling which is simply a letter substitution (this often occurs with British and American spelling variations). If the wildcard character is the plus sign, then these are typical applications of this operator:

  - **Wom+n** for ‘woman OR women’
  - **nebuli+er** for ‘nebuliser OR nebulizer’
  - **fib++** for ‘fiber OR fibre’
    - (will also retrieve ‘fibro’ as in ‘fibro-osseous’, ‘fibro-vascular’ or any word prefixed with ‘fibro-’)

• **Wildcard Character** (one character or none, not additive)
  This wildcard operator will retrieve everything the one above retrieves (wom+n) but will also pick up spelling variations based on an added character or most plurals:

  - injection+ for ‘injection OR injections’
  - p+ediatric for ‘pediatric OR paediatrics’
  - wom+n for ‘woman OR women’

• **Wildcard Character** (one character or none, additive)
  Unfortunately, this wildcard operator is not provided by many search systems but it is the most useful. Like the previous operator it is a place holder for one or no additional characters, with the added feature that the operator can be used repeatedly to cover a greater number of characters:
  For example:

  + = 0 to one character  
  ++ = 0 to two characters  
  +++ = 0 to three characters, and so on.

  Thus infan++ would retrieve infant, infants, infancy, but not infantry, infanticide, infantile, and so on.

• **Automatic Plurals**
  No special character is required. If a noun is entered the system will automatically search for the plural, although this may only include plurals formed by adding an ‘s’ or ‘es’ to the end of a word. Many systems will also include some irregular forms such as man/men woman/women. They may not include forms such as calf/calves and child/children. Often the system will provide a way to turn off automatic plurals, since sometimes one want to find only an exact word form.
Truncation Wildcard Operators in some of the systems available via the HSL:

<table>
<thead>
<tr>
<th></th>
<th>EBSCOHost</th>
<th>Web of Science</th>
<th>Library Catalog</th>
<th>CSA ILLUMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Truncation</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(end of word)</td>
<td>*</td>
<td>*</td>
<td>$</td>
<td>*</td>
</tr>
<tr>
<td><strong>Truncation</strong></td>
<td>none†</td>
<td>*</td>
<td>none</td>
<td>*</td>
</tr>
<tr>
<td>(within a word)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td><strong>Wildcard Character</strong></td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>(exactly one character)</td>
<td></td>
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</tr>
<tr>
<td><strong>Wildcard Character</strong></td>
<td>none</td>
<td>$</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>(one character or none, not additive)</td>
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</tr>
<tr>
<td><strong>Wildcard Character</strong></td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>(one character or none, additive)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Automatic Plurals</strong></td>
<td>Yes††</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

† If you place the * in the middle of a term, the characters after the asterisk are ignored. For example, if you try to search sul*ur to retrieve sulfur or sulphur, you will actually retrieve any word that begins sul...

†† Automatic if the singular form is used and the plural form is a simple ‘s’ or ‘es’. Irregular forms require checking the “expander” box.