



Display BLAST search results with custom output format

The `-outfmt` option permits formatting arbitrary fields from the BLAST tabular and comma-separated-value (CSV) formats. Use the `-help` option on the command-line application (e.g., `blastn`) to see the supported fields. The `max_target_seqs` option should be used with any tabular output to control the number of matches reported.

Example of custom output format: field selection

The following example shows how to display the results of a BLAST search using a custom output format. The tabular output format with comments is used, but only the query accession, subject accession, evalue, query start, query stop, subject start, and subject stop are requested. For brevity, only the first 10 lines of output are shown:

```
$ echo 1786181 | ./blastn -db ecoli -outfmt "7 qacc sacc evalue
qstart qend sstart send"
# BLASTN 2.2.18+
# Query: gi|1786181|gb|AE000111.1|AE000111
# Database: ecoli
# Fields: query acc., subject acc., evalue, q. start, q. end, s.
start, s. end
# 85 hits found
AE000111      AE000111      0.0      1      10596      1      10596
AE000111      AE000174      8e-30     5565     5671      6928     6821
AE000111      AE000394      1e-27     5587     5671      135      219
AE000111      AE000425      6e-26     5587     5671      8552     8468
AE000111      AE000171      3e-24     5587     5671      2214     2130
$
```

Example of custom output format: output separator

One can also customize the output separator in the tabular and comma-separated-value output formats using the `delim` token immediately after the numeric output format selector. In the example below `@` is used as a custom output separator:

```
$ echo 1786181 | blastn -db ecoli -outfmt '6 delim=@' | head
AE000111.1@AE000111.1@100.000@10596@0@0@1@10596@1@10596@0.0@19568
AE000111.1@AE000174.1@88.991@109@9@3@5565@5671@6928@6821@7.69e-30@132
AE000111.1@AE000394.1@92.941@85@6@0@5587@5671@135@219@1.29e-27@124
AE000111.1@AE000425.1@91.860@86@5@2@5587@5671@8552@8468@5.99e-26@119
AE000111.1@AE000171.1@90.588@85@8@0@5587@5671@2214@2130@2.78e-24@113
AE000111.1@AE000171.1@90.476@84@8@0@5587@5670@10559@10642@1.00e-23@111
AE000111.1@AE000376.1@88.889@90@7@3@5587@5675@129@42@1.30e-22@108
AE000111.1@AE000268.1@89.412@85@9@0@5587@5671@6174@6090@1.30e-22@108
AE000111.1@AE000112.1@100.000@58@0@0@10539@10596@1@58@1.30e-22@108
```

