

```
1  |#!/usr/bin/perl -w
2
3  |#analyze BLASTALL output ran with -m8 or -m9 option to extract only 1st line for each
4  |query GI
5  |#Sun 12 Dec 2004 mod 1/28/08
6  |# adds another column to the output file
7
8  |unless (@ARGV==1) {
9  |    die "usage: extract_lines.pl filename";
10 |}
11
12 |$filename=$ARGV[0];
13
14 |open(IN, "< $filename") or die "cannot open $filename: $!";
15
16 |$outfile=$filename.".top";
17
18 |open(OUT, "> $outfile") or die "cannot open $outfile: $!";
19
20 |$old="";
21 |# print header
22 |print OUT "#Query id \tSubject id \t% identity \talignment length \tnumber of mismatches
23 | \tnumber of gap openings \tposition of query start \tposition of query end \tposition of
24 | subject start \tposition of subject end \te-value of a hit \tbit score of a hit \tbit
25 | score per aligned position\n";
26 |#
27 |#added bitscore/aligned position
28 |#
29 |while(defined($line=<IN>)){
30 |
31 |    if($line=~"#"){
32 |        #skip the line, since it is a comment line
33 |        #copy line to OUT
34 |        #print OUT "$line";
35 |        #if you want to keep comment lines un comment the last line
36 |    }
37 |    else{
38 |        chomp ($line);#the lines normally end with a new line symbol. chomp removes it
39 |        from the end of the line
40 |        #this makes sure that the last $part[n] does not include a \n at the end
41 |        @parts=split(/\t/, $line);
42 |        if ($parts[0] eq $old)
43 |        {
44 |            #skip line;
45 |            #print "$old\n";
46 |        }
47 |        else {
48 |            #next line calculates bitscore divided by alignment length;
49 |            $ratio=$parts[11]/$parts[3];
50 |            #add $ratio to printout
51 |            print OUT "$line\t$ratio\n";#adds a new line symbol to the end of the line
52 |            $old=$parts[0];
53 |        }
54 |    }
55 |}
56
57 |close(IN);
58 |close(OUT);
59 |exit;
```