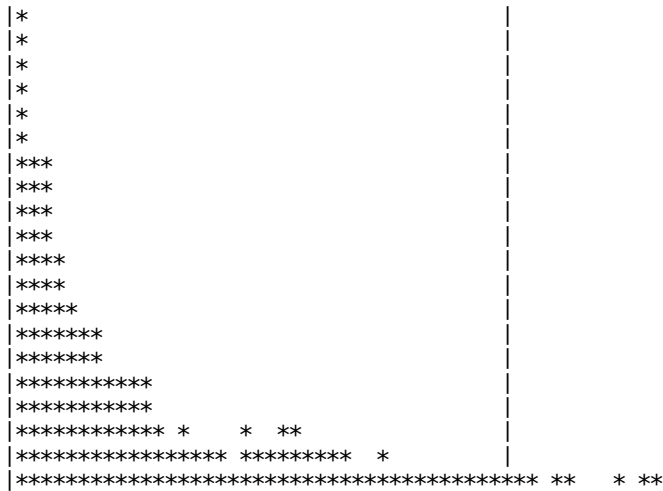


```
INFO: Starting Flye 2.6-release
[2020-06-02 12:26:06] root: DEBUG: Cmd: /software/shared/apps/x86_64/flye/2.6.0/bin//flye --
nano-raw N6.fasta --threads 2 --genome-size 110m --min-overlap 3000 --debug --out-dir /scratch/
curlmite/bulbmite/CHLAMY/output_flye_N6test_g361513
9991
[2020-06-02 12:26:06] root: DEBUG: Python version: 3.6.5 (default, Aug 17 2018, 13:29:29)
[GCC 6.3.0]
[2020-06-02 12:26:06] root: INFO: >>>STAGE: configure
[2020-06-02 12:26:06] root: INFO: Configuring run
[2020-06-02 12:27:00] root: INFO: Total read length: 3840294308
[2020-06-02 12:27:00] root: INFO: Input genome size: 110000000
[2020-06-02 12:27:00] root: INFO: Estimated coverage: 34
[2020-06-02 12:27:00] root: INFO: Reads N50/N90: 34213 / 9723
[2020-06-02 12:27:00] root: INFO: Selected minimum overlap: 3000
[2020-06-02 12:27:00] root: INFO: Selected k-mer size: 17
[2020-06-02 12:27:00] root: INFO: >>>STAGE: assembly
[2020-06-02 12:27:00] root: INFO: Assembling disjointigs
[2020-06-02 12:27:00] root: DEBUG: -----Begin assembly log-----
[2020-06-02 12:27:00] root: DEBUG: Running: flye-assemble --reads N6.fasta --out-asm /scratch/
curlmite/bulbmite/CHLAMY/output_flye_N6test_g3615139991/00-assembly/draft_assembly.fasta --
genome-size 110000000 --config /shared/clssoft/apps/x
86_64/flye/2.6.0/flye/config/bin_cfg/asm_raw_reads.cfg --log /scratch/curlmite/bulbmite/CHLAMY/
output_flye_N6test_g3615139991/flye.log --threads 2 --debug --min-ovlp 3000 --kmer 17
[2020-06-02 12:27:00] DEBUG: Build date: Oct 15 2019 10:20:10
[2020-06-02 12:27:00] DEBUG: Total RAM: 503 Gb
[2020-06-02 12:27:00] DEBUG: Available RAM: 437 Gb
[2020-06-02 12:27:00] DEBUG: Total CPUs: 64
[2020-06-02 12:27:00] DEBUG: Parameters:
[2020-06-02 12:27:00] DEBUG:     big_genome_threshold=29000000
[2020-06-02 12:27:00] DEBUG:     low_cutoff_warning=1
[2020-06-02 12:27:00] DEBUG:     hard_min_coverage_rate=10
[2020-06-02 12:27:00] DEBUG:     assemble_kmer_sample=1
[2020-06-02 12:27:00] DEBUG:     repeat_graph_kmer_sample=1
[2020-06-02 12:27:00] DEBUG:     read_align_kmer_sample=1
[2020-06-02 12:27:00] DEBUG:     maximum_jump=1500
[2020-06-02 12:27:00] DEBUG:     maximum_overhang=1500
[2020-06-02 12:27:00] DEBUG:     repeat_kmer_rate=100
[2020-06-02 12:27:00] DEBUG:     assemble_ovlp_relative_divergence=0.10
[2020-06-02 12:27:00] DEBUG:     repeat_graph_ovlp_divergence=0.15
[2020-06-02 12:27:00] DEBUG:     read_align_ovlp_divergence=0.25
[2020-06-02 12:27:00] DEBUG:     max_coverage_drop_rate=5
[2020-06-02 12:27:00] DEBUG:     chimera_window=100
[2020-06-02 12:27:00] DEBUG:     min_reads_in_disjointig=4
[2020-06-02 12:27:00] DEBUG:     max_inner_reads=10
[2020-06-02 12:27:00] DEBUG:     max_inner_fraction=0.25
[2020-06-02 12:27:00] DEBUG:     add_unassembled_reads=0
[2020-06-02 12:27:00] DEBUG:     max_separation=500
[2020-06-02 12:27:00] DEBUG:     unique_edge_length=50000
[2020-06-02 12:27:00] DEBUG:     min_repeat_res_support=0.51
[2020-06-02 12:27:00] DEBUG:     out_paths_ratio=5
[2020-06-02 12:27:00] DEBUG:     graph_cov_drop_rate=5
[2020-06-02 12:27:00] DEBUG:     coverage_estimate_window=100
[2020-06-02 12:27:00] DEBUG:     extend_contigs_with_repeats=1
[2020-06-02 12:27:00] DEBUG:     min_read_cov_cutoff=3
[2020-06-02 12:27:00] DEBUG:     short_tip_length=10000
[2020-06-02 12:27:00] DEBUG:     long_tip_length=100000
[2020-06-02 12:27:00] DEBUG:     max_bubble_length=50000
[2020-06-02 12:27:00] DEBUG: Running with k-mer size: 17
[2020-06-02 12:27:00] DEBUG: Running with minimum overlap 3000
[2020-06-02 12:27:00] DEBUG: Metagenome mode: N
[2020-06-02 12:27:00] INFO: Reading sequences
[2020-06-02 12:28:04] DEBUG: Building positional index
[2020-06-02 12:28:05] DEBUG: Total sequence: 3840294308 bp
[2020-06-02 12:28:05] DEBUG: Expected read coverage: 34
[2020-06-02 12:28:05] INFO: Generating solid k-mer index
[2020-06-02 12:28:05] DEBUG: Hard threshold set to 3
[2020-06-02 12:28:05] DEBUG: Started k-mer counting
[2020-06-02 12:41:54] INFO: Counting k-mers (1/2):
[2020-06-02 13:14:49] INFO: Counting k-mers (2/2):
[2020-06-02 14:33:14] DEBUG: Estimated minimum kmer coverage: 6
[2020-06-02 14:33:14] DEBUG: Filtered 119233883 erroneous k-mers
[2020-06-02 14:33:14] DEBUG: Repetitive k-mer frequency: 2198
[2020-06-02 14:33:14] DEBUG: Filtered 42096 repetitive k-mers (0.000398214)
[2020-06-02 14:33:14] INFO: Filling index table
[2020-06-02 14:33:23] DEBUG: Sampling rate: 1
[2020-06-02 14:33:23] DEBUG: Solid k-mers: 105669972
```

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[2020-06-02 14:33:23] DEBUG: K-mer index size: 2096031925
[2020-06-02 14:33:23] DEBUG: Mean k-mer frequency: 19.8356
[2020-06-02 15:22:51] DEBUG: Sorting k-mer index
[2020-06-02 15:23:43] DEBUG: Peak RAM usage: 23 Gb
[2020-06-02 15:23:43] DEBUG: Estimating k-mer identity bias
[2020-06-02 15:40:14] DEBUG: Median overlap divergence: 0.0995312
[2020-06-02 15:40:14] DEBUG: K-mer estimate bias: -0.0711208
[2020-06-02 15:40:14] DEBUG: Max divergence threshold set to 0.199531
[2020-06-02 15:40:14] INFO: Extending reads
[2020-06-02 15:40:14] DEBUG: Estimating overlap coverage
[2020-06-02 16:14:11] INFO: Overlap-based coverage: 24
[2020-06-02 16:14:11] INFO: Median overlap divergence: 0.0111156
[2020-06-02 16:14:11] DEBUG: Sequence divergence distribution:

```



 45% 0% 5% 10% 15% 20% 25% 30% 35% 40%

Q25 = -0.0028, Q50 = 0.011, Q75 = 0.042

```

[2020-06-02 16:55:23] DEBUG: Assembled disjointig 1
  With 830 reads
  Start read: +473e3b61-dff7-4554-b7b1-38a70e1bae8d
  At position: 12
  leftTip: 0 rightTip: 0
  Suspicious: 1
  Mean extensions: 19
  Avg overlap len: 39995
  Min overlap len: 3658
  Inner reads: 0
  Length: 9907352
[2020-06-02 16:55:23] DEBUG: Ovlp index size: 587065
[2020-06-02 16:55:24] DEBUG: Inner: 19958 covered: 24982 total: 342346
[2020-06-02 17:12:41] DEBUG: Assembled disjointig 2
  With 243 reads
  Start read: +03ae6d72-fb40-44f6-bd8a-78bbd80710d9
  At position: 161
  leftTip: 0 rightTip: 0
  Suspicious: 0
  Mean extensions: 19
  Avg overlap len: 37842
  Min overlap len: 6687
  Inner reads: 0
  Length: 2863020
[2020-06-02 17:12:41] DEBUG: Ovlp index size: 632661
[2020-06-02 17:12:41] DEBUG: Inner: 25680 covered: 31712 total: 342346
[2020-06-02 17:19:43] DEBUG: Assembled disjointig 3
  With 319 reads
  Start read: +5fb23311-6de7-43d8-8429-6d35112acde7
  At position: 214
  leftTip: 0 rightTip: 0
  Suspicious: 1
  Mean extensions: 20
  Avg overlap len: 38417

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Min overlap len: 3517
Inner reads: 0
Length: 3622311
[2020-06-02 17:19:43] DEBUG: Ovlp index size: 735528
[2020-06-02 17:19:44] DEBUG: Inner: 33178 covered: 41664 total: 342346
[2020-06-02 17:40:34] DEBUG: Assembled disjointig 4
  With 52 reads
  Start read: +65df4ce7-6f78-45e2-a9fe-c36c47f45e6f
  At position: 27
  leftTip: 0 rightTip: 0
  Suspicious: 22
  Mean extensions: 1758
  Avg overlap len: 61808
  Min overlap len: 3112
  Inner reads: 0
  Length: 1455732
[2020-06-02 17:40:34] DEBUG: Ovlp index size: 1021666
[2020-06-02 17:40:36] DEBUG: Inner: 80686 covered: 94086 total: 342346
[2020-06-02 17:55:58] DEBUG: Assembled disjointig 5
  With 575 reads
  Start read: +a5276ac6-d762-4bff-bccf-5e7f6fc87296
  At position: 8
  leftTip: 1 rightTip: 0
  Suspicious: 1
  Mean extensions: 19
  Avg overlap len: 40042
  Min overlap len: 4974
  Inner reads: 0
  Length: 6604415
[2020-06-02 17:55:59] DEBUG: Ovlp index size: 1093932
[2020-06-02 17:55:59] DEBUG: Inner: 93466 covered: 108396 total: 342346
[2020-06-02 18:14:17] DEBUG: Assembled disjointig 6
  With 371 reads
  Start read: +2f7c87ab-3a90-46d4-bb25-d8a2b1467bae
  At position: 334
  leftTip: 0 rightTip: 0
  Suspicious: 0
  Mean extensions: 18
  Avg overlap len: 40178
  Min overlap len: 15610
  Inner reads: 0
  Length: 4445796
..
```