Options:

-? --help This message (use -? output for help on output type)

--body-length-units Speeds are in units of body lengths (default is mm)

--from Time from which to read data (in seconds, default 0)

--graph Bring up GUI to graph population data

--header Write tab-delimited description of each data column

-I (--interactive) Bring up GUI (same as --graph)

--in Only use data points inside specified shape

--ignore-outside-triggers Ignore all data except near explicit triggers

-m (--minimum-move-mm) How far an object must move (in mm) to count

-M (--minimum-move-body) (same thing, except unit is object-lengths)

--minimum-biased If object travels this far, it's mostly forwards

--map Use GUI to display the data as a browsable map

-n (--id) Only use listed object IDs (use commas: -n 1,5,22)

-N (--each-id) Write one output file for each ID listed

--no-output Don't write any output

--no-repeat Remove any frames that appear to be repeated

--out Data must be outside specified shape.

-o (--output) Write specified output data (-? output for syntax)

-O (--output-name) Add an identifier to output

-p (--pixelsize) Size of one pixel, in mm

--plugin Use plugin; --plugin help gives generic help

--prefix Specify data file prefix explicitly

-q (--quiet) Don't print progress information to console

-s (--speed-window) Time window (in seconds) to average velocity

-S (--segment) Shape analysis of path: lines, arcs, etc.

--shadowless Only count objects after they move a body length

--skip-zeros Omit timepoints with zero objects found

--spine-from-outline (Re)compute spine more robustly given outline

-t (--minimum-time) How long an object must last (in seconds) to count

-T (--output-rate) Time between output data points (in seconds)

--to Time after which to ignore data (in seconds)

--target Place all output in specified directory (must exist)

--trigger Report a stimulus-triggered average to .trig file

--trig-only Only write triggered averages, not regular output

--who Print out object ID numbers that pass criteria

Format:

directory must contain a MWT .summary file

A .zip file containing the data can be specified instead of the directory.

The corresponding directory will be created for output purposes.

-m,M,p,s,t,--from,--to expect a floating-point value as an argument

-O name turns output from prefix.dat to prefix.name.dat

If only one -O is given, it will change the .pos file name also. If multiple -O's are given, only .dat files are changed, and there must be the same number of -o's and -O's (and will correspond in order)

--trigger is followed by the duration of the averaging window (in seconds), a comma, and then comma-separated list containing either the time at which to trigger or the tap, puff, stim3, or stim4 keywords followed by a colon,

the time before to take a measurement, a colon, and the time after to take a measurement. (Numbers may be left blank; colons are required.) Multiple trigger statements are okay (each adds more columns to the file).

-n or --id can be entered multiple times, and/or can contain multiple id numbers; all IDs are accumulated. Numbers must be separated by commas with no spaces. IDs that do not exist or fail criteria are excluded.

The -N or --each-id variant appends a five-digit object ID number to the prefix, and creates one set of files for each object.

-N all means output separately every object meeting the criteria.

-n and -N are not compatible. Use only one.

--in and --out should be followed by either a center and radius (circle) as x,y,r, or two corners of a rectangle as x1,y1,x2,y2.

Examples:

--trigger 1.0,5,tap:0.25:0.5,750 will average from 5-6 s after the start of recording, from 1.25 to 0.25 s before each tap, from 0.5 s to 1.5 s after each tap, and once more from 750-751 s.

--trigger 0.2,tap::0.2 will average from 0.2 to 0.4 seconds after each tap

--trigger 0.5,tap:0: will average from 0.5s before to 0 s before each tap

--in 1,1,100,50 --out 25,25,5 would only take data from an elongated

rectangle with a hole missing from its left side.

crankin@Leviathan:~$ java -Xmx1500m -jar '/home/crankin/Desktop/Chore\_1.3.0.r1035.jar' --help -? output

Choreography 1.3.0 build 1035

Usage: java Choreography [options] directory

or java -jar Chore.jar [options] directory

Format:

-o requires an argument specifying columns (separate long form with commas)

all -- same as ftnNpsSlLwWaAmkbcd1234

time & frame

t time -- always the first column unless included again

f frame -- the frame number

p persistence -- length of time object is tracked

object numer

D id -- the object ID

n number -- the number of objects tracked

N goodnumber -- the number of objects passing the criteria given

object body size

e area

m midline -- length measured along the curve of object

M morphwidth -- mean width of body about midline

posture

w width

W relwidth -- instantaneous width/average width

l length -- measured along major axis, not curve of object

L rellength -- instantaneous length/average length

a aspect -- length/width

A relaspect -- instantaneous aspect/average aspect

k kink -- head/tail angle difference from body (in degrees)

c curve -- average angle (in degrees) between body split into 5 segments

movement

s speed

S angular -- angular speed

b bias -- fractional excess of time spent moving one way

P pathlen -- distance traveled forwards (backwards=negative)

d dir -- consistency of direction of motion

x loc\_x -- x coordinate of object (mm)

y loc\_y -- y coordinate of object (mm)

u vel\_x -- x velocity (mm/sec)

v vel\_y -- y velocity (mm/sec)

o orient -- orientation of body (degrees, only guaranteed modulo pi)

r crab -- speed perpendicular to body orientation

stimulus

1 tap -- whether a tap (stimulus 1) has occurred

2 puff -- whether a puff (stimulus 2) has occurred

3 stim3 -- whether the first custom stimulus has occurred

4 stim4 -- whether the second custom stimulus has occurred.

The output items can be followed by the statistic to report

(default is to output the mean)

^ :max -- maximum value

\_ :min -- minimum value

# :number -- number of items considered in this statistic

- :median -- median value

\* :std -- standard deviation

:sem -- standard error

:var -- variance

? :exists -- 1 if the value exists, 0 otherwise

:p25 -- 25th percentile

:p75 -- 75th percentile

:jitter -- estimate of measurement precision

Long format items need at least one comma (add trailing comma if needed)

Examples:

-o a\_ and -o aspect:min, are the same thing

-o fnww\* and -o frame,number,width,width:std also are the same

-o xy will give positions (useful in conjunction with -N option)

-o uv will give velocity vectors (also useful with -N)

-o CCCCC will run through five different plugin-computed quantities, in order

(advancing to the next plugin when the previous has computed all it can)

-o CC\*CC\* will run through two but compute mean and SD of each.