

NAME

stickfig – generate stick figure from ProAnalyst’s exported limb coordinates

SYNOPSIS

stickfig [-n num] [-s rec] [-e rec] [-c col] [-f nf] [-x fn] [-y fn] [-m mul] [-g gap] [-b] [-v] input.csv > output.plt

DESCRIPTION

Stickfig reads X and Y coordinates for limb positions from an ASCII text file of comma-separated values exported from the *ProAnalyst* motion capture software, and generates an HPGL plot file of stick figures showing limb movement over time. Output is sent to the standard output, which should be redirected to a file or piped to an HPGL viewer such as *xhpgl*.

Options**-n num**

specifies a frame rate divisor for reducing the amount of output, such that only the first of each "num" input records will appear in the output (default is 10).

-s rec

specifies the starting record number (default is 1).

-e rec

specifies the ending record number (default is all). Only the records between the specified start and end will be included in the output. If instead of a record number, the start or end is specified as a time value followed by "s" (for seconds), then the record with a matching time value in column 2 will be used as the start or end. If the record number is followed by "i" (for index) the record with a matching index value in column 1 will be used. If the number is followed by "ss" it is taken as seconds from the start, i.e. the first record.

-c col

specifies the starting column for the first X coordinate (default is 3).

-f nf specifies the number of features (coordinate pairs) in the input file (default is the number of pairs in the first record).

-x fn specifies a feature number on which to normalize the X position (default is 0, meaning no normalization).

-y fn specifies a feature number on which to normalize the height (Y) (default is 0, meaning no normalization).

-m mul

specifies the scaling factor by which the coordinates will be multiplied (default is 1). By default, the figures are scaled so that they occupy the middle third of a plotter page, and are spaced apart to fill the whole width. Increasing the scaling will cause them to appear larger but be spaced closer together. The multiplier is relative to the automatic scaling that will be used to convert the input coordinates to the HPGL coordinate system. You can specify an absolute scaling factor by appending the string "abs" to the number, e.g. 120abs, to get fixed scaling of the data across several data sets.

-g gap

specifies the x-axis spacing or gap between successive limb figures, overriding the automatic spacing calculation. The gap is specified in HPGL plotter units. (default is automatic).

-b specifies that a scale bar should be shown at the bottom left.

-v specifies verbose output, which will show some calculated parameters. This can be helpful when trying to figure out the correct values for the start or end of the range, or suitable absolute scaling factors (for **-m** option) or spacing for the **-g** option.

FILES

input.csv the file exported from ProAnalyst

output.plt the HPGL plot file to which output is redirected

EXAMPLES

stickfig -s 1800 -e 2400 -m 0.3 -f 5 -b h3_w9_base1.txt > h3w9b1.plt

Generate a plot using the first 5 coordinate pairs, scaling the figures to be 30% of the default size, and specifying the data range using start and end record numbers. Output is saved in a .plt file, and includes a scale bar.

stickfig -s 1.7s -e 4.1s -m 0.3 -f 5 -b h3_w9_base1.txt > h3w9b1.plt

Same example but specifying the start and end records using the time values from column 2 in the input.

stickfig -n5 -s7.5ss -e10.5ss h2_w6_ns3_stickfig.txt | xhpgl

Generate and view a plot using every 5th record in the data, with the range specifies as seconds from start (ss).

SEE ALSO

proa2run(1), emuhpgl(1)