

list2pedc

—

A pedigree coordinates generator

J C. Loredó-Osti and Kenneth Morgan

August 15, 2005

Version 0.5

Abstract

list2pedc generates a pedc file (a small modification of the pedigree coordinates file as defined in **Pedpack**) from an ASCII list file. *list2pedc* is part of the **Pedfiddler** suite of programs for pedigree drawing.

1 Synopsis

list2pedc [options] [inputfile]

2 Description

list2pedc generates a pedigree coordinates file from an ASCII list file. The format for the list file is

<id> <father> <mother> [sex] [affection_status]

where <> and [] mean mandatory and optional fields, respectively. Colors for affection status are assigned and a label (or alias) is set to <id>. This label can be modified subsequently by editing the pedc file or with *pedcsharp*(1). The file input is assumed to be alphanumeric with sex and affection_status coded as integers: 'unknown', 'male', and 'female' are coded as 0, 1, and 2, respectively; 'unknown', 'normal', and 'affected' are coded as 0, 1, and 2, respectively. The program does a minimal checking for consistency of the pedigree, inserts founders whenever are needed and generates indices and labels with their coordinates.

3 Options

If **inputfile** is not specified, the program opens a window that allows to set the options.

{ -o | --output } *outfile* Output file (default stdout).

{ **-s** | **--sex** } Input file includes sex.
 { **-a** | **--affection** } Input file includes affection status.
 { **-m** | **--minimize** } Minimize the square of line distances by simulated annealing (default no minimization).
 { **-I** | **--iterations** } *n* Number of iterations for annealing (default 1000).
 { **-T** | **--temperature** } *f* Annealing starting temperature (default 15.0).
 { **-C** | **--cooling** } *f* Annealing cooling factor (default 0.9).
 { **-N** | **--normal** } *r,g,b* RGB colors for icons:
 { **-A** | **--affected** } *r,g,b* $0 \leq r,g,b \leq 255$
 { **-U** | **--unknown** } *r,g,b* without spaces between numbers.
 { **-d** | **--default** } Show default values.
 { **-v** | **--version** } Show version.

4 Examples

- Suppose the ASCII list file `famx.txt` has columns for sex and affection status. To generate a pedc file with unknown phenotype in ‘blue’ and the other default options, type:

```
list2pedc -sa -U 0,0,255 -o famx.pedc famx.txt
```
- To generate a pedc file with minimization of the length of the edges type:

```
list2pedc -a -s -m -ofamx.pedc famx.txt
```

Note the different styles for passing the options.

5 See Also

editpedc(1), *index2pedc*(1), *pedc2ps*(1), *pedcsharp*(1), *pedfiddler*(1), and *pfiddler*(1).

6 Version

Version: 0.5 of August 15, 2005

7 Acknowledgment

As part of **Pedfiddler**, *list2pedc* is based on the publicly available version of **Pedpack** (<http://www.stat.washington.edu>). The **Pedpack**-v2.2 counterpart of *list2pedc* is *setcoords*. Bugs and pitfalls in *list2pedc* are solely the responsibility of J.C. Loredano-Osti and Kenneth Morgan.

8 Authors

J C. Loredó-Osti
Department of Human Genetics, McGill University.
`josti@bagel.epi.mcgill.ca`

and

Kenneth Morgan
Departments of Human Genetics and Medicine, McGill University
and McGill University Health Centre Research Institute, Montreal.
`ken@bagel.epi.mcgill.ca`