Linux command for running the simulating program

hsx<cint&

cint is a file of input parameters in editable text format

Here is a sample of parameter file:

```
File_name= t2.txt                                    1*
Elastic_Constant= 22.28 14.79 12.5                   .
Electron_Energy(kV)= 200.                            .
Beam_Sense= 100 0  102                               .
Dislocation_Sense= -1 0 1
Burgers_Vector1= 0 0 0 2
Burgers_Vector2= 1 -1 0 2
Burgers_Vector2= 1 -1 0 2
Burgers_Vector2= 0 0 0 2
fault_space= 0 4.5 0
Reflection_Vector= 0. 2. 0.
Foil_Normal= 100 1 115
fault1_displacement= 0. 0. 0. 1. 1.
fault2_displacement= 0. -0. -0. 1. 6.
fault3_displacement= 0 0 0 1 3
fault4_displacement= 0. 0. 0. 1. 1.
fault5_displacement= 0. 0. 0. 1. 1.
fault1_norm= 0 0 1
fault2_norm= 0 0 1
fault3_norm= 0 0 1
beam_number= 6
Beams=  -1 0 1 2 3 4
excitation= 4.01
lattice_Parameter= .356
imaging_beam= 1
extinction= 43.66 94.22 172.1 281.2 420.3
extinction_prime= 234.8 305.6 400.7 518.1 654.7
Normal_absorption=  0.002489
Thickness_thin=  25
Thickness_thick= 70.
mag_factor= 1
cpu_num= 8
                                                     30*
```

General rule:
Each data line consists of two parts, a title segment that can include any ASCII text without space, and a parameter segment; between the segments it must have at least one space (more is ok); spaces are used to separate numerical parameters (any number of spaces is ok). All numbers are read as floating.

1* the output simulated image file that is in text format and that can be viewed by ImageJ (using text image). The image has 32-bit accuracy but printing out in a length of 12.

2* Elastic constant; now only for cubic systems.

3* High tension of TEM.

4* Image beam direction, using upward as positive.

5* Dislocation direction.

6*-9* Burgers vectors; for partials or dipoles or closed perfect dislocations.

10* dislocation spaces configured into 6-9.

11* so-called ‘g’ vector.

12* foil direction, upward as positive.

13*-17* five displacements for regions out of dislocations and between dislocations.

18*-20* fault directions for those fault planes between dislocations.

21* the total number of beams in the systematic row.

22* the transmission beam (0) and diffraction beams.

23* the Bragg refection position in unit of “g”.

24* crystal lattice parameter.

25* extinction distances; should-be the number of beams minus 1; this program requires these from other sources.

e.g., beam number=6 g= 0 2 0 for a f.c.c crystal
extinctions includes those for 0 2 0 0 4 0 0 6 0 0 8 0 0 10 0

26* corresponded extinction prime.

27* Normal absorption.

28* the minimum thickness.

29* the maximum thickness.

30* the number of cpu used for parallel computing using openMP.