Data card input is 'IN' and has Fortran test values

IN2.txt by Mark below

```
        0.0     0.0       0.0     100.0    0.001    2E-05
20      50      0.0
        2.2     0.25    4.86205     2.24
```

IN4.txt by Francis below

```
        0.0     0.0       0.0     100.0    0.001    2E-05    20.0    50.0    0.0
20      50
        2.2     0.25    5.62603     2.24
```

EMPNPLT EMP Program - README file

The EMPNPLT.f program comes from a thesis by Terry C. Chapman. The program listing was included in the thesis as an Appendix. This was scanned and converted into a text file using Optical Character Recognition (OCR) software. There were a number of errors in the OCR conversion. These were (hopefully) found and eliminated. In order not to confuse generations of the program, a suffix was appended; the latest version is EMPNPLT_FG2.f. (The ".f" at the end identifies a FORTRAN source listing.)

The resulting file was compiled using Microsoft FORTRAN PowerStation and linked, resulting in the EMPNPLT_FG2.exe executable file. There was one warning message of no apparent consequence. To execute the file, a command window may be opened under Windows. (This was tested using Windows XP.) Change to the directory containing the software. There is an input data file;the latest version is IN4.txt. To execute the program, simply issue the command --- "EMPNPLT_FG2 <IN4.txt".

The output will be displayed in the command window. There is also as second version of the program included, EMPNPLT_FG3. This is the same calculations with the time and E-Field output data reformatted in hopefully an easier to read fashion. It may be executed in the fashion above.

The input file contains three lines. The first line contains the variables X, Y, Z, HOB, GAMYLD, BFIELD, BANGLE, NDELR,and OUX using FORMAT 7F10, 2I5. The second line contains ITER, the iteration time in shakes, using FORMAT I3. The third line contains AP, BP, RNP, and TOP, using FORMAT F10.0. For further details see the thesis or source code listing.

5/10/17