

## Appendix 1: Data File Formats

*.SAM files:* The SAM file lists all the samples in a sample set. It should be stored in a directory of the same name as the file.

[The following description is modified from the documentation for Craig Jones' Paleomag routines at [http://cires.colorado.edu/people/jones.craig/PMag\\_Formats.html](http://cires.colorado.edu/people/jones.craig/PMag_Formats.html).]

```
East Rotated Block (East end of block east of West End Wash)¶
 36.2 245.3 14.0          42.2 45.8¶
erb1.0a                  12.3aa¶
erb2.0a                  23.4ab¶
```

The first line is a comment line. The fields of the second line are the locality's latitude (first 5 characters) in °N, locality longitude (next 5 after a space) in °E, and the magnetic declination (next 5 after a space) in °E of N. Two fields can follow the magnetic declination: the azimuth and plunge of a fold axis (both are 5 characters after a space). The following two fields can be added by PaleoMag and will usually be blank before using the code. These are the average strike and dip of the beds at the locality (used for the tilt-corrected reference directions; see "Equal Area Options..." under the Edit menu, above), both a space and 5 characters. All following lines are the filenames of samples from this locality with the stratigraphic level ( 8 characters and underlined, indicating that it is added by PaleoMag to the standard CIT format) and the site id (optional), which is two letters (case-dependant).

*Sample files:* The data for each file is stored in a sample file, identified by the name given in the .SAM file. The sample files must be created before the sample is run.

```
T c112-0.03 ¶
 0.03 264.0 90.0 0.0 0.0 1.0¶
NRM 350.2 28.3 350.2 28.3 1.26E-06 002.7 241.4 -7.7 0.004660
0.003571 0.001195 shoemake ¶
```

[The following description is taken from the documentation for Craig Jones' Paleomag routines.]

In the first line the first four characters are the locality id, the next 9 the sample id, and the remainder (to 255) is a sample comment.

In the second line, the first character is ignored, the next 6 comprise the stratigraphic level (usually in meters). The remaining fields are all the same format: first character ignored (should be a blank space) and then 5 characters used. These are the core strike, core dip, bedding strike, bedding dip, and core volume or mass. Conventions are discussed below. CIT format can include fold axis and plunge, which at present is unused.

The following lines are in the order the demagnetizations were carried out. The first 2 characters (3 for NRM only) is the demag type (AF for alternating field, TT for thermal, CH for chemical, etc.), the next 4 (3 for NRM) is the demag level (°C for thermal, mT for alternating field, etc.), the next 6 (first blank for all the following fields) for geographic ("in situ") declination of the

sample's magnetic vector, next 6 for geographic inclination, next 6 for stratigraphic declination, next 6 for stratigraphic inclination, next 9 for normalized intensity (emu/cm<sup>3</sup>; multiply by the core volume/mass to get the actual measured core intensity), next 6 for measurement error angle, next 6 for core plate declination, next 6 for core plate inclination, and the final three fields of 8 each are the standard deviations of the measurement in the core's x, y, and z coordinates in 10<sup>5</sup> emu. NB in 2003, it appears the CIT format is actually using three final fields of 9 characters, not 8.

*.RMG files:* When making susceptibility measurements or running rock magnetics experiments, data are also stored in a comma-delineated .RMG file, as shown below. Fields are labeled in a header row.

```
amb1-20030923-b3bottom,,Vol: 1, ¶
,Level,Bias Field (G),Spin Speed (rps),Hold Time (s),Mz (emu),Std.
Dev. Z,Mz/Vol,Moment Susceptibility (emu/Oe),Mx (emu),Std. Dev. X,My
(emu),Std. Dev. Y ¶
Instrument: Lowenstam 2G Magnetometer Sample Changer, 0 , 0 , 0 , 0 , 0
, 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 ¶
Time: 5/22/2006 10:21:35 AM, 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0 , 0
, 0 ¶
AFmax, 850 , 0 , 0 , 0 ,-1.83039034923165E-08 , 3.42212710508044E-10 ,-
1.83039034923165E-08 , 0 ,-2.85789943823964E-09 , 1.29382514677378E-09
, 4.70175056067857E-09 , 2.16783152297401E-09 ¶
ARM, 1000 , 0 , 0 , 0 ,-1.50331035063758E-08 , 3.99137640235756E-10 ,-
1.50331035063758E-08 , 0 , 4.44277505705283E-08 , 2.51525292791469E-09
,-5.08489944918086E-09 , 8.4611914977449E-10 ¶
```