

X.I. SAMPLT: ALTERNATIVE FORM FOR PLOT FILES

Plotting with SAMMY has traditionally been accomplished by means of a set of utility programs FORODF [JC78]. SAMMY produces “ODF” or “plot” files containing the information (such as energies and cross sections) from which plots may be made using FORODF. (See, for example, Section VII.C.) An alternative plotting program RSAP [RS03] is currently under development and will be made available at a future time.

Users on other systems may prefer to use other plotting packages. With version M5 (or earlier) of SAMMY, it was necessary for the “SAMMY manager” to choose between two alternatives when linking the program. To use the ODF option, file modfio.o (compiled form of modfio.f) would be included directly. To use the other option, file modfio.o was replaced with modf3.o (compiled form of modf3.f); this was most readily accomplished by simply renaming modf3.o to modfio.o prior to the link step. With this option, SAMMY-M5 would produce a “generic” binary file (also named SAMMY.ODF) that contained the same information normally stored in the ODF file, but in a form that could easily be read by a simple FORTRAN code.

With version M6 (including M6-Beta*) of SAMMY, the procedure has changed. SAMMY now automatically produces both an ODF file and a “generic” binary file (which is now named SAMMY.PLT instead of SAMMY.ODF). Moreover, the SAMMY.PLT file is now in double precision while SAMMY.ODF remains in single precision.

A sample code SAMPLT (file mplt.f) is provided with the SAMMY FORTRAN. SAMPLT reads the binary file and produces an ASCII file (SAM_ASCII.PLT), which contains the same information as the ODF file (see Section VII.C for details). The local SAMMY manager may wish to modify the file mplt.f to accommodate his or her system’s needs; mplt.f contains extensive comment cards to aid in making the needed modifications.

Note that versions of this program (SAMPLT) prior to SAMMY-M5 were named “sambin” instead of “samlpt”. However, the word “bin” has special meaning on Unix systems; hence, the name has been changed to avoid potential conflict with system routines.

Caution: There may be problems associated with the creation of PLT files for certain configurations of SAMMY runs, notably those for which more than one PLT file is produced by an individual run (and possibly in other situations). Generally such problems should be immediately obvious to the user; when in doubt, cross sections can be printed in the LPT file for comparison with the PLT file. (See “options for printing into SAMMY.LPT” in Table VI A1.2 to learn how this can be done.) Users are encouraged to contact the SAMMY author at LarsonNM@ornl.gov if they encounter difficulties with these files.

* Users of version M6-Beta should be aware that a modification is needed in file mend1.f, in which the line reading
`CALL Oldopn (61, 'SAMMY.PLT', 1)`

should be replaced with

`CALL Oldopn (61, 'SAMMY.PLT ', 1)`

That is, a blank must be added after SAMMY.PLT, before the quote. Similar changes are needed in file mplt.f.