

VII. OUTPUT FROM SAMMY

The output from SAMMY is presented in two or more files, depending on the control parameters set in the INPut file (card set 3 of Table VI A.1). Table VII.1 summarizes those output files; no guarantees are made that the list is complete. The ordering in the table is somewhat arbitrary, beginning with the most commonly used files.

In the table, unit numbers correspond to those used within the FORTRAN of SAMMY. Most SAMMY users will have no need for this information, which is included for completeness' sake. The final column of the table tells which sections and/or tables contain details about the file listed in the first column.

Table VII.1. SAMMY output files

File name and unit number	Contents	Location of details
(log file) 6	What appears on the screen in the interactive mode; system information	
SAMMY.LPT 21	Descriptive output, to be carefully examined by the analyst. ("LPT" stands for "line printer", a concept which clearly dates the origin of this code!)	Section VII.A
SAMMY.IO 70	Initial and final values of varied parameters	
SAMMY.PAR 32	PARAMeter output file, in same format as the initial PARAMeter file, in which values have been updated for the varied parameters	Table VI B.2 Section VI.B
SAMMY.COV 64	Updated COVariance matrix for the updated parameters, in binary form. Updated parameter values and other information are also included here.	Table VII B.1 Section VII.B
SAMMY.ODF 72	This is the plot file in ORELA Data Format (ODF), from which plots can be produced using utility program FORODF	Section VII.C
SAMMY.PLT 61	A "generic" binary file containing the same information as in SAMMY.ODF	Section VII.C
SAMMY.DAT 72	ODF file containing experimental data and uncertainties for angular distribution data	Section X.A

Table VII.1 (continued)

File name and unit number	Contents	Location of details
SAMMY.NDF 75	ASCII file containing resonance parameters in the format required for File 2 of the Evaluated Nuclear Data Files (ENDF/B-6)	Section VI.F.2
SAMMY.NDX 56	ASCII file identical to SAMMY.NDF, with additional descriptive information	Section VI.F.2
SAMMY.N32 55	ASCII file containing the resonance parameters in the format required for File 32 of the Evaluated Nuclear Data Files (ENDF/B-6)	Section VI.F.2
SAMMY.N3X 56	ASCII file identical to SAMMY.N32, with additional descriptive information	Section VI.F.2
SAMMY.FL3 55	ENDF File 3 (point-wise cross sections)	Section VIII.B
SAMMY.FLX 56	ENDF File 3 with additional descriptive information	Section VIII.B
SAMNDF.INP 13	SAMMY-type INPut file produced when an ENDF/B File 2 is used for resonance parameter input	Section VI.F.3
SAMNDF.PAR 12	SAMMY-type PARAmeter file produced when an ENDF/B File 2 is used for resonance parameter input	Section VI.F.3
SAMQUA. PAR 12	PARAmeter file containing spin group information, created when “PUT QUANTUM NUMBERS into parameter file” command is used. The spin group information here is in key-word particle-pair format.	
SAMMY.CCV 77	Compact parameter CoVariance matrix (uncertainties, plus correlation matrix in integer format)	Section VII.E
SAMMY.SSM 25	A binary file containing edge-effects corrections (the function Q) to single-scattering correction for capture cross sections	Section III.D
SAM012.DAT 60	Table with energy, self-shielded cross section, single-scattering correction, double-plus correction, and full multiple-scattering-corrected cross section (sum of the other three); generated via the command “PRINT MULTIPLE SCATTering corrections”	
SAMMY.MCR 12	Input information for Monte Carlo simulation of multiple-scattering corrections	Section X.M

Table VII.1 (continued)

File name and unit number	Contents	Location of details
SAMXAC.ODF	No longer available (replaced with SAMMY.UNB, to eliminate redundancy in the code)	
SAMMY.UNB 9	Binary file in ODF format, containing energy in Section 1 and unbroadened cross section in other sections, created when command “PUT UNBROADENED CROSS sections into plot file” is invoked	Section VII.G
SAMUNB.DAT 9	ASCII file containing auxiliary energy grid and unbroadened cross section in TWENTY format, created when command “PUT UNBROADENED CROSS sections into plot file” is invoked	Section VII.G
SAMUNX.DAT 9	ASCII file containing auxiliary energy grid and unbroadened cross sections in CSISRS format, created when command “PUT UNBROADENED CROSS sections into plot file” is invoked, for those cases where more than one type of cross section is available	Section VII.G
SAMMY.LEG 99	ASCII file containing energy and Legendre coefficients for all possible L for each energy in the auxiliary grid. In older versions, this file was called “legendre.dat”	
SAMMY.N04 97	Legendre coefficients in format for ENDF File 4. In older versions, this file was called “endf_legendre.dat”	Section IX
SAMJNK.DAT 96	The same information as SAMMY.LEG or SAMMY.N04, in expanded format	Section IX
SAMMY.LLL 69	Average cross sections and uncertainties	Section VI.F.1
SAMAVG.COV 29	ASCII file containing covariance matrix for multigroup average cross sections	Section VI.F.1
SAMSEN.DAT 29	Partial derivatives of averaged cross section with respect to some of the R-matrix parameters	Section VI.F.1
SAMMY.CRS 55	Multigroup average cross sections, in ENDF-like file	Section IX
SAMMY.N33 55	Covariance matrix for multigroup average cross sections, in ENDF File 33 format	Section IX

Table VII.1 (continued)

File name and unit number	Contents	Location of details
SAMMY.PUB 37	Tabulated file containing all resonance parameters and uncertainties, in a form suitable for porting to spreadsheets for formatting for publication	Section VII.F
SAMCOV.PUB 37	Tabulated file containing the calculated cross sections and the associated covariance matrix. The cross sections are “point-wise” (i.e., given at specific energies).	Section IV.E.4
SAMMY.PA2 33	Modified PARAmeter file when “REFORMULATE DATA FOR implicit data covariance”	Section VI.C.3.c
SAMMY.IDC 34	File containing normalization and background information when “REFORMULATE DATA FOR implicit data covariance”	Section VI.C.3.c
SAMMY.DA2 15	Modified DATA file in which normalization and background corrections have been made, when “REFORMULATE DATA FOR implicit data covariance”	Section VI.C.3.c
SAMCOV.PUP 40	File containing values and covariances for varied u -parameters (to be used as PUPs in later runs), created when the command “CREATE PUP FILE FROM varied parameters used in this run” is given in the INPut file	Section VI.C.3.a
SAMMY.REL 12	PARAmeter file in which only the “relevant” parameters have been flagged	Table VI A1.2
INPUT.NEW 22	Spin group information in the format of card set 10.1, provided as a possible alternative to the obsolete format used in the INPut file	
REMORI.PAR 25	Binary file containing original parameter file and inverse of original parameter covariance matrix, when needed for iterations with M+W method of solution of Bayes’ equations	Section IV.E.3
SAMMY.YWY 32	Binary file containing contribution of one data set to the Y and W matrices needed in M+W method of solution of Bayes’ equations	Section IV.E.1
SAMMY.PDS 71	Partial derivatives of the theoretical values with respect to every resonance parameter	Section VII.D