

XIII.E. ORELA DATA FORMAT

Plotting of results in SAMMY may be accomplished by first generating a “plot file,” named SAMMY.ODF, and using program FORODF [JC78] to produce plots. The code FORODF has both advantages and disadvantages for the user; advantages include data-manipulation capabilities not readily available in other plotting packages. The major disadvantages are the age, the lack of routine maintenance, the use of single precision, and the difficulties in porting this program. Because of these disadvantages, FORODF is no longer distributed along with the SAMMY code.

For information on alternative plotting packages, see Sections VII.C and X.I.

Calls to three different ODF routines occur in the coding for SAMMY. Names and arguments for these routines are

```

Odfio (Iu,File,Ifb,New,Ins,Incmx,Mode,Ndstrt,Iener,Irun)
Outodf(Iu,Ifb,Ins,Isn,Mode,Ndstrt,Isc,Inc,Array(J),N)
Inodf (Iu,Ifb,Ins,Isn,Mode,Ndstrt,Isc,Inc,Array(J),N)

```

The first subroutine (ODFIO) is used to open or create the plot file; the second (OUTODF), to write INC elements of ARRAY into section number ISN of the file; and the last (INODF), to read from the file. Access to the plot file is random rather than sequential.

Meanings for the arguments of these subroutines are given in Table XIII E.1. Note that many of the arguments are irrelevant to SAMMY, either because they are unused or because only one value is used. These are marked as “irrelevant” in the table.

Table XIII E.1. Arguments for ODF subroutines

Argument name	Included in which routine	Meaning of argument
IU	All three: ODFIO, OUTODF, and INODF	FORTTRAN unit number
FILE	ODFIO	File name for plot file
IFB	All three	Irrelevant to SAMMY
NEW	ODFIO	Irrelevant
INS	All	Number of sections in the file (see Table VII C.1)
ISN	OUTODF, INODF	Which section is being written or read now
INCMAX	ODFIO	Total number of data points for this plot file
MODE	All	Irrelevant
NDSTRT	All	Irrelevant (equal to zero)
IENER	ODFIO	Irrelevant
IRUN	ODFIO	Irrelevant
ISC	OUTODF, INODF	This “write” or “read” begins with the ISC th data point
INC	OUTODF, INODF	This “write” or “read” includes a total of INC data points
ARRAY(j)	OUTODF, INODF	This subroutine will write from or read into the array elements ARRAY(j) through ARRAY(j+INC-1)
N	OUTODF, INODF	Irrelevant