

Table XIII F.1 (continued)

```
=====
SYSTEM REQUIREMENTS
=====
```

- (1) tar -- unix tape utility, needed to unpack the software and examples
- (2) gzip -- the gnu unzip utility (<http://directory.fsf.org/gzip.html>)
to unpack the software package
- (3) F77 compiler
- (4) C compiler - needed only for timing routines, if used
- (5) make - the unix make utility

```
=====
UNPACKING
=====
```

The SAMMY code is distributed as four gzipped tar files --
 sammy-7.0.0.tar.gz contains the code;
 samtry-7.0.0.tar.gz contains the test cases;
 samexm-7.0.0.tar.gz contains the tutorial exercises;
 samsim-7.0.0.tar.gz contains the simulations.
 "7.0.0" is the version number.

In your main directory, type one of the following sets of commands
 to unpack the file sammy-7.0.0.tar.gz:

- (1) tar xzf sammy-7.0.0.tar.gz
- (2) gunzip -c sammy-7.0.0.tar.gz|tar xvf -

or (3) gunzip sammy-7.0.0.tar.gz (which must be followed by)
 (3a) tar xf sammy-7.0.0.tar

This will create a subdirectory sammy-7.0.0 which contains the
 FORTRAN code plus command files.

Similar commands can be used to unpack the other three files.
 Test cases will then be found in subdirectory samtry-7.0.0/samtry
 tutorial exercises in samexm-7.0.0/samexm
 and simulations in samsim-7.0.0/samsim

```
=====
INSTALLATION
=====
```

If you have system privileges, you may now install executable files for
 sammy and the auxiliary programs into /usr/local/bin by typing the
 following commands:

```
cd sammy-7.0.0
./configure
make
make install
```

Table XIII F.1 (continued)

```
=====
A DIFFERENT DIRECTORY
=====
```

Alternatively, you may wish to install the executables into another directory, for example /somedir/sammy/bin. To do this, first be certain you have write authority for the subdirectory. Then execute the following commands, being sure to use the correct complete path name for the subdirectory:

```
./configure --bindir=/somedir/sammy/bin
make
make install
```

These commands would install sammy and auxiliary-code executable files into /somedir/sammy/bin.

```
=====
CHANGING THE ARRAY SIZE
=====
```

Dynamic dimensioning is achieved in SAMMY by assigning and de-assigning space in a large container array, designated as A(-N:N). The default value for N is 32500000. To use a different value, modify the configure line as shown here, substituting the appropriate value for your computer system:

```
./configure --with-array=100000000
or ./configure --bindir=/somedir/sammy/bin --with-array=210000000
```

```
=====
COMPILER OPTIONS, ETC.
=====
```

If you want to use a different FORTRAN compiler, for example f90, then set the environment variable F77=f90
 in bash: export F77=f90
 in csh: setenv F77 f90
 and then do the above install sequence.

If you want to set compiler flags, for example -Wall, then use
 in bash: export FFLAGS=-Wall
 in csh: setenv FFLAGS -Wall
 and then do the above install sequence.

```
=====
Other useful commands
=====
```

```
make clean      <- removes all generated object and source files
make distclean  <- cleans the tree for a new invocation of configure
make dist       <- creates a new *.gz file which includes any updates
                  that you may have made to the FORTRAN files
```

Table XIII F.1 (continued)

```
=====
PC (WINDOWS) EXECUTABLES
=====
```

For those who wish to run SAMMY in a Windows environment on a pc, executable files for SAMMY and the auxiliary programs are provided in subdirectory sammy-7.0.0/Windows/ and can be copied from there to the pc.

```
=====
RUNNING THE TEST CASES
=====
```

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Unix or Linux
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```

The command file "zzauto" (found in samtry-7.0.0/samtry) can be used to run all of the test cases on a Unix or Linux system. Command file "zzauto_short" runs a representative sample of thirteen test cases. Individual test cases can be run by using the command file "t" or "test???" in the subdirectory for that test case. See Section XII.B of the SAMMY manual for details.

```
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Windows
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```

Command file "test.bat" in the subdirectory tr??? can be used to run the individual test case under Windows.

```
=====
THE SAMMY MANUAL
=====
```

The SAMMY manual is found in subdirectory sammy-7.0.0/doc in pdf format. Two versions are given there. SAMMY7.pdf is the version to use on screen. SAMM7_print.pdf is the version to use if you wish to print a double-sided listing of the manual; it contains extra blank pages as needed to make the pagination come out correctly.