

## DOS VERSIONS: UPDATE

The DOS programs included are revised and expanded versions of the DOS versions previously available at this server. The output produced is now considerably richer, in particular when many series are treated. Extensive debugging has been performed, and some algorithms and subroutines have been modified. Therefore, the new versions may produce on occasion results that are different from the ones obtained with previous ones.

More information on additional facilities of the DOS versions of the programs, having to do with new parameters or changes in their default/non-default values, new output produced, or new graphs, can be found in the Manual for program TSW, also available in the Bank of Spain web site.

### 1. INSTALLATION

Create the directories TRAMO and SEATS. Copy exttramo.exe in TRAMO, and extseats.exe in SEATS. From the DOS prompt, execute

```
C:\TRAMO> exttramo -d
```

(the path can , of course, vary), and

```
C:\SEATS> extseats -d
```

(the path can , of course, vary). The programs autoinstall themselves.

### 2. INPUT PARAMETERS

Many input parameters have disappeared, as well as many of the options available for a particular parameter (either they were unnecessary or the program does now the choice by itself.) Further, some new input parameters have been included. A more updated description of the present input parameters is the one contained in Section 4 of the Manual for program TSW. However, the DOS programs have some additional parameters that are (or should be) still active.

The following table presents the input parameters present in the TRAMO-SEATS DOS versions that are not in TSW, and the TSW input parameters that are not in the DOS versions. (Only relevant parameters have been included in the tables.)

Not in TSW		In TSW
TRAMO DOS	SEATS DOS	Not in DOS versions
CANCEL	MAXIT	MODELSUMM
IFAL	EPSIV	NMATRIX
INCON	SEK	TERROR
IFILT	UR	SENS
IDENSC	CRMEAN	$k_1, k_2$
TOL	L	MINABS
ICONCE	NOSERIE	FCT
UBP	BIAS	UNITS
ICDET	MAXBIAS	(Other parameters,
LOGN	SMTR	notably, OUT, FH, and
DELTATC	THTR	RSA have been
ISTDV	NDEC	modified.)

For the meaning of the parameters, see the old DOS Manual and the Revised TSW Manual.

### 3. INPUT FILE

The input file is as described in the DOS Manual, except for the fact that the number-of-observations-per-year parameter (MQ) is now entered as a fourth number in the second row of the file (below the series name). The input file has thus the following structure.

*Seriesname*

*NZ SY SP MQ*

.....

*observations*

.....

*\$INPUT ...parameter= parameter value...\$*

where NZ= number of observations, SY= starting year, SP= starting period in the first year (for monthly data, 1 for January, 2 for February, ..., 12 for December), MQ= number of observations per year (12 if monthly, 4 if quarterly,...)

#### 4. EXECUTION

The name of the input file for both programs should be "serie" (examples of input files are found in the two subdirectories named EXAMPLES). Then, execute c:\TRAMO\tramo, and similarly with SEATS (c:\SEATS\seats).

##### Joint use of the programs

When TRAMO and SEATS are to be applied sequentially (parameters RSA or SEATS different from zero in the input file of TRAMO -see user instructions), TRAMO creates at the end of its execution a file named "seats.itr". This file should be moved to the directory SEATS and renamed "serie"; then SEATS executed.

##### Program TS.EXE:

Execution of the file "ts.exe" in the TRAMO directory performs all previous steps at once, when SEATS is installed in C:\SEATS, namely: execution of TRAMO and creation of the file "seats.itr", transfer of this file to SEATS with the name "serie", and execution of SEATS. Therefore, to run both programs sequentially, only "ts" needs to be executed.

When SEATS has been installed in arbitrary directory, say

C:\MYPROGRAMS\SEATS,

in order to run "ts", the environment variable "SEATS\_DIR" should be set equal to the previous SEATS directory. Hence, from the DOS prompt, execute

```
SET SEATS_DIR=C:\MYPROGRAMS\SEATS
```

```
TS
```

When, from the DOS prompt, the command "echo %SEATS\_DIR%" shows the correct directory where SEATS is installed, only "ts" needs to be entered.

#### 5. OUTPUT FILE

The output of the programs is found in the subdirectories named OUTPUT. The DOS output files are the same as those produced by TSW, described in Section 2.5 of the TSW Manual. They include summary results (for the individual series and for the aggregate set) and summary tables with the main output series produced by the program.

## 6. GRAPHS

After execution of either TRAMO or SEATS, typing "graph" the arrays stored in the subdirectories TRAMO/GRAPH or SEATS/GRAPH can be displayed in the screen. The DOS graphics program is written with the library PGPLOT, and can be ported to UNIX or MVS mainframes. The file **grfont.dat** contains the fonts for the characters to be printed in the video. It can be copied in the directory that contains the executable file (**graph.exe**), but it can also be placed in any other directory, in which case the variable PGPLOT\_FONT should be appropriately set (i.e. SET PGPLOT\_FONT = C:\SEATS\GRFONT.DAT).

Some instructions for the user follow.

1. To move between the menu voices, arrows should be used; the voice selected appears in blue.
2. For the overlay option, use the space-bar to select the plots.
3. It is possible to print the visualized graph using the command-line parameter "-ps"; a postscript SEATS.PS file is then created.
4. Several plots can be displayed in one page. Assuming a matrix structure for the page, with X columns and Y rows, the following command-line parameters control the number of plots:

- x # : where # is the number of columns in the page. The possible values are 1, 2.

- y # : where # is the number of rows in the page. The possible values are 1, 2, 3, 4.

By default, x = 1, y = 2.

.....

Several new graphs are available, in particular, a set of histograms for multiple series applications.