

The ABC of the Use of TRIO, Version 2.0

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Note : a French version of this *Readme* is available on the same Agora Jules Dupuit site. *Ce texte est disponible en version française AJD-100-F sur le même site.*

The TRIO program runs in a DOS box under Windows 9x/NT/2000/XP. A Windows dialog box has been added at the beginning of TRIO launch to simplify the creation of a new database or the opening of a database already installed in TRIO.

For the creation of a new database, there is therefore no more need to use the command “trio newbank” at the DOS prompt as described in certain editions of the publication AJD-102/CRT-902: “TRIO Tutorial, Version 2.0”; neither is it necessary, for the opening of a database already installed, to launch the program under DOS by typing the command “trio” in the directory where the database is stored.

A. Downloading and installing TRIO, Version 2.0

1. To use TRIO, at the site www.ajd.umontreal.ca, in the first panel entitled “Quantitative Methods”, download the five items which are included in the table “TRIO, Version 2.0”. The first item is a compressed file of the TRIO program, “trio20.zip”. The four others are TRIO documents in pdf format for consultation when using TRIO. A utility to convert data from EXCEL to TRIO format is also supplied.
2. Uncompress “trio20.zip” in a temporary directory, for example **C:\Temp**.
3. To install TRIO, double-click on the “setup.exe” file in **C:\Temp**. By default, the program will be installed in directory **C:\Program Files\Trio2X** and five subdirectories will be created : **\bin**, **\data**, **\data2.0**, **\demo** et **\etc**. An icon named “Run Trio” will also be created on the desktop.
The subdirectory **\data** contains all the new databases that the user will create for the different projects. Each database is stored in a separate subdirectory under which two subdirectories **\plots** (for graphs) et **\reports** (for tablexes and other outputs of TRIO) are also created by TRIO.
4. To start a new project, click the “Run Trio” icon and type the name of a new database in the small textbox above the big window which is empty when running TRIO for the first time, but will contain a list of the databases created in the future. The name of a database can be more than 8 characters with or without spaces since the TRIO program which run in a DOS window is not yet opened at this stage. By contrast, when working inside TRIO, the names of the files created by Tablex and Graph should follow the DOS naming convention, 8 characters with 3-character extension.

B. Executing TRIO

Subsequently, it will be possible to choose between opening an existing database, creating a new database, or deleting a selected database. In the case of a deletion, please note that ALL files in the database and the directory will be deleted: it would be wise to move to another location any data file or reports file that must be saved. Older users should note that the utility **trclean** is no longer functional in this version.

C. Quitting TRIO

To quit TRIO, the normal procedure is to type “9” after the question “Enter: Next module”. It is not advised to quit Trio by clicking on the close button [x] in the title bar of the DOS window since TRIO is still running.

D. Troubleshooting

Consult the Tutorial AJD/102/CRT-902 for a quick overview on running Trio. Of special interest are the command driven editors for creating variables and variants: typing the letter “h” in these editors will bring to screen a summary of the editor commands. Refer to pages 2.18 – 2.22 for the variant editor.

For Windows 98 users: after the installation is complete, restart the computer. In the pop-up window appearing after the Trio icon has been clicked, uncheck the box “Switch Trio 2.x in Full Screen Mode”. Failure to uncheck this box might cause a “Fatal Error...” message to appear. In this case, end the Trio application with the Windows Task Manager, then recall Trio.

In a DOS window, one may toggle between a full screen and a reduced screen with ALT+ENTER.

Some users with a non-standard keyboard may not easily find some special characters, for example when entering an algebraic expression. In this case, an alternate method for entering a special character is to use the code associated with each ASCII character. First press the Num Lock key; then, holding down both the ALT and CTRL keys, type on the numerical keypad the ASCII Character Set code. For example, when entering the algebraic expression $X1^{X2}$, the code for the exponential character is 94. This solution is not limited to Trio and is of general use. The codes may be found in the Appendix of most computer books.

To uninstall Trio, click on Start > Settings > Control Panel > Add/Remove programs > Trio 2.x

E. Using TRIO Tutorial, Version 2.0 (Publication AJD-102/CRT-902)

The database used in TRIO Tutorial is located in subdirectory **\demo**. To be used it, it should be imported in TRIO. Here are the steps for importing this database:

1. To launch TRIO, double-click the icon “Run Trio” on the desktop.
2. Create a new database, say “TestDemo”, by entering this name in the small textbox above.
3. Click “Open” and answer “Yes” to the question “Do you want to copy some Trio Data files to newly created Trio Data Bank?”.
4. By default, a new window will open and display all the files in subdirectory **\demo** (Three classes : Level, Share and Probability). Select all the files **.in** which appear in this subdirectory (See Section 1.2 CREATE A DATABASE, in publication AJD-102/CRT-902).
5. After importing all the files **.in** into the new database “TestDemo”, answer “No” to the question “Do you want to copy some Trio Data files to newly created Trio Data Bank?”.
6. Now, we proceed to the next step 0.01 INITIALIZE DATABASE to set up the dimensions of the database to be imported and the characteristics of the monitor, the

printer and the plotter (Choose option 1 for these three hardwares). Follow the steps as described in section 1.2 CREATE A DATABASE in publication AJD-102/CRT-902.

7. Give a title to the project, "TestDemo" for example, and the user's initials if he wishes.
8. The TRIO main menu appears with different options. To be able to work with the database imported from subdirectory **\demo**, we should read first :
 - For LEVEL, the three files **D111.in** by selecting module 1.11 and option 1 (Read variables from ascii file), **G111.in** by selecting the same module and option 2 (Read groups from ascii file) and **D211.in** by selecting module 2.11 et option 1 (Read variants from ascii file).
 - For SHARE, the three files **D121.in** by selecting module 1.21 and option 1 (Read variables from ascii file), **G121.in** by selecting the same module and option 2 (Read groups and alternatives from ascii file) and **D221.in** by selecting module 2.21 and option 1 (Read variants from ascii file).
 - For PROBABILITY, the three files **D131.in** by selecting module 1.31 and option 1 (Read variables from ascii file), **G131.in** by selecting the same module and option 2 (Read groups from ascii file) and **D231.in** by selecting module 2.31 and option 1 (Read variants from ascii file).

F. Creating a new database in TRIO from an EXCEL data file using the utility AJD-58

To create a new database associated with a new project from an EXCEL data file, convert first the latter into TRIO format and then import the converted file into TRIO. Here are the main steps:

1. Store the EXCEL data file in the working directory of your choice.
2. Convert the data file from EXCEL to TRIO using the utility **AJD-58** : "*The EXCEL to TRIO Version 2 Data Converter Utility for the LEVEL (L-1.4), PROBABILITY (P-2) and SHARE (S1/S5) Algorithms*" downloadable from the site, in the table "Utilities" which is included in the first panel "Quantitative Methods". Note that the EXCEL data file should be in the format as described in the "Help" of the utility. Name the TRIO data files as D111.in, D121.in or D131.in according to the LEVEL, SHARE or PROBABILITY class which appropriate to the new project. The converted files are located in the same working directory as the EXCEL data file.
3. Import into TRIO the D111.in, D121.in or D131.in files by following the same steps as in section E, except that, at step 4, go to the directory where these files are stored, using the small black arrow pointing downwards, in the small window labeled "Look in : ". Note also that, at step 8, only the variables files D111.in, D121.in or D131.in exist. The groups files G111.in, G121.in or G131.in are usually created in TRIO itself, whereas the variants files D211.in, D221.in or D231.in are not available since, by definition, no variant has yet been estimated at the beginning of a new project.

G. Copying a database and the variants of a project on another PC

Suppose that we have already installed a database in TRIO, a base that is associated with a certain project on the PC at the office, and that we have already done some estimations, obtaining variants, and even graphs and tablexes of results. To be able to work with the same project on another PC, at home for example, simply copy that database and all the other files (variants, graphs and tablexes) on that second PC. Here are the main steps:

1. On the first PC, go to the directory **\data** and compress the whole subdirectory containing the data files, all the other files of TRIO and the two subdirectories **\plots** (Graphs) and **\reports** (Tablexes and other outputs of TRIO).
2. On the second PC, first install the TRIO program if it is not yet installed and then decompress the compressed directory in the directory **\data**. This will yield an exact copy of the data files, of all the other files of TRIO and of the two subdirectories **\plots** and **\reports** as found on the first PC. Launching TRIO then, the dialog box will

display, in the big window below, the name of the database just copied: it is then possible to continue the work already started at the office.

H. Converting a Tablex table from TRIO to Word

1. Using Word, open the tablex file created by TRIO. Note that the TRIO tablex is stored in the subdirectory \reports, as is the tablex converted in Word format.
2. Edit the file as if it were a real Word file.
3. After finishing the file editing, save the file by clicking “No” to preserve the formatting.
4. Close Word and click “Yes” in the new dialog box which appears, in order to save the file in Word format.

I. Inserting a TRIO graph in a Word document

1. In TRIO, create a graph using modules 4.10, 4.20 ou 4.30, depending on the model, and type “k” to save the graph in the file “plots” in subdirectory \plots. Note that the file “plots” may well already contain several graphs that were stored by previous saves.
2. Close TRIO and stay in the DOS window. Go to subdirectory \plots and use the TRIO utility **TRCUT**, as described in Subsection 1.11.2 of the reference manual AJD-103/CRT-903, to split the file “plots” into several small files named PLOT000, PLOT001, ... which contain only one graph each. These files are in Tektronix 4014 format.
3. Then use the TRIO utility **TRPS**, as described in Subsection 1.11.3 of the reference manual AJD-103/CRT-903, to convert a file PLOTxxx to postscript (.ps) format. This utility includes options to format the image, such as rotation and resizing.
4. Use the freeware **GVIEW** with **GHOSTSCRIPT** to convert the postscript file to bitmap (.bmp). For the bitmap file, choose format “bmp256” with resolution 72. **GVIEW** and **GHOSTSCRIPT** can be downloaded from the university site www.cs.wisc.edu/~ghost/gview/.
5. Insert into Word the image of the graph from the bitmap file.