

# ABBaziE

(A Bridge between Bazi and Excel)



Ver. 1.0

**User's Guide**  
**Manuel d'utilisation**  
**Benutzerhandbuch**  
**Manuale dell'utente**  
**Guía del usuario**

This manual has been written by  
Stefano Testa  
who developed the ABBaziE module  
within the Master Program in  
Data Intelligence and Decision Strategies  
La Sapienza University, Rome, Italy  
Approved by:  
Professor Friedrich Pukelsheim  
University of Augsburg, Germany  
Professor Bruno Simeone  
La Sapienza University, Rome, Italy



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## Introduction

### Welcome to ABBaziE

ABBaziE is a practically oriented and reliable tool for generating XLS documents from within BAZI application and for generating BAZI forms file from your Excel forms.

The first release of ABBaziE is a prototype. It provides some of the possible functionality that will be implemented later.

### BAZI application overview

The name Bazi is derived from "Berechnung von Anzahlen mit Zuteilungsmethoden im Internet", which translates into "Calculation of allocations by apportionment methods in the Internet". A "Bazi" is also local Augsburg dialect for a very good friend. Bazi is generally pronounced 'batzee, with the stress on the first syllable.

Bazi is a program to convert vote counts into seat numbers using one of the many apportionment methods that have been devised by practitioners and theoreticians, during more than a century of proportional representation history. The user may key-in his or her own data, but Bazi also features an extensive empirical database. Bazi's graphical user interface is showed below.

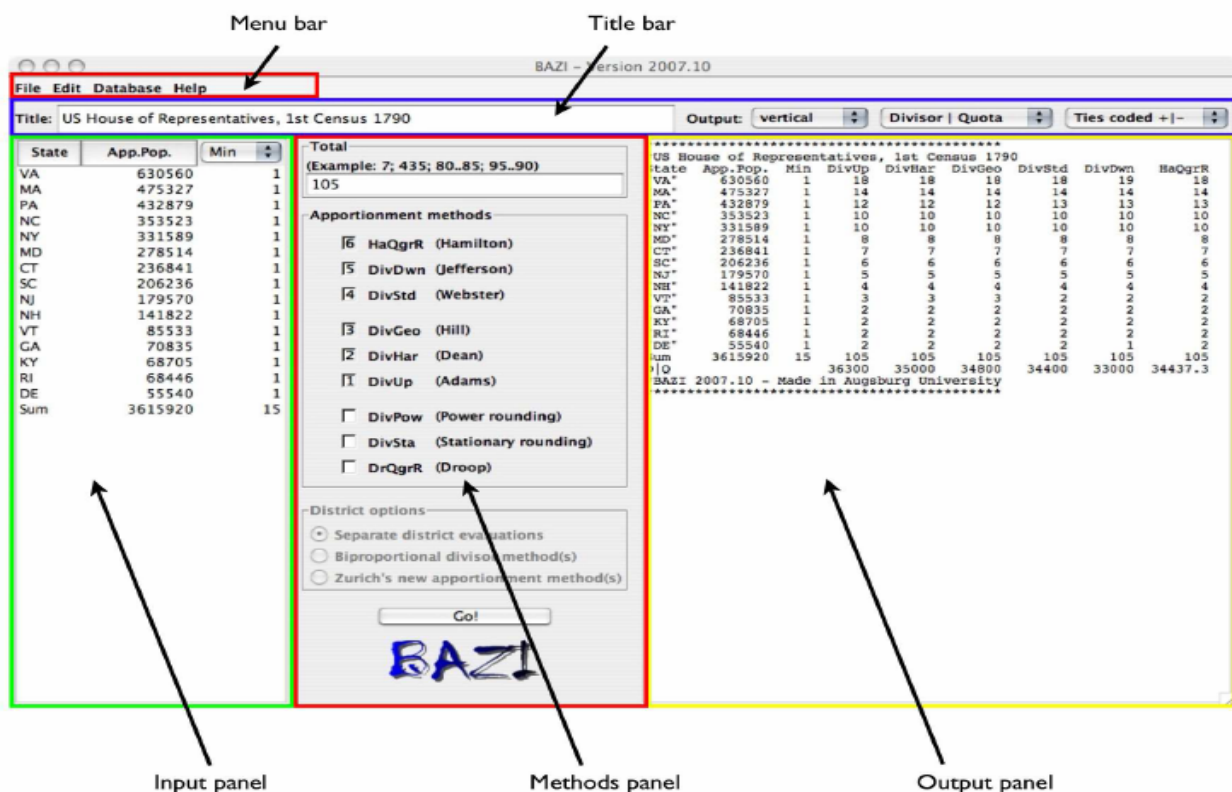


fig. 1: BAZI user interface

## Getting started

ABBaziE has been developed as master's University project work in the University of Rome "La Sapienza". The idea of ABBaziE is to permit conversion from XLS file format to the simpler BAZI file format and permit conversion from BAZI .txt output file to XLS format within the application. Since ABBaziE is a Java program, it requires the java run-time environment to be installed prior to running ABBaziE. This is packed files which, after saving to the user's machine, need to be unzipped. ABBaziE is meant to run under Windows, but it should run under all Unix dialects. We would appreciate any feedback from users who find that this hope does not materialize.

## Installing and Configuring the Software

ABBaziE requires the java run-time environment to be installed prior. This is packed files which, after saving to the user's machine, need to be unzipped. Usually a double-click on the file named ABBaziE.jar will start the program. It may be convenient to place a link to this file to the desktop; the package includes an appropriate icon, featuring a checked ballot box. The Bazi program may also be started by executing the command `java -jar ABBaziE.jar`. ABBaziE comes up with the initial screen that prompts the user to select one of the two button.

## What Is BAZI file?

The BAZI file format is a "space" separated values file type that stores tabular data by using space as delimiter. BAZI format mainly uses double-quotes as delimiters of text labels. Every section start with a delimited label: `=Label=`

Note that because of their simple textual formatting, BAZI files can be opened within simple text editors.

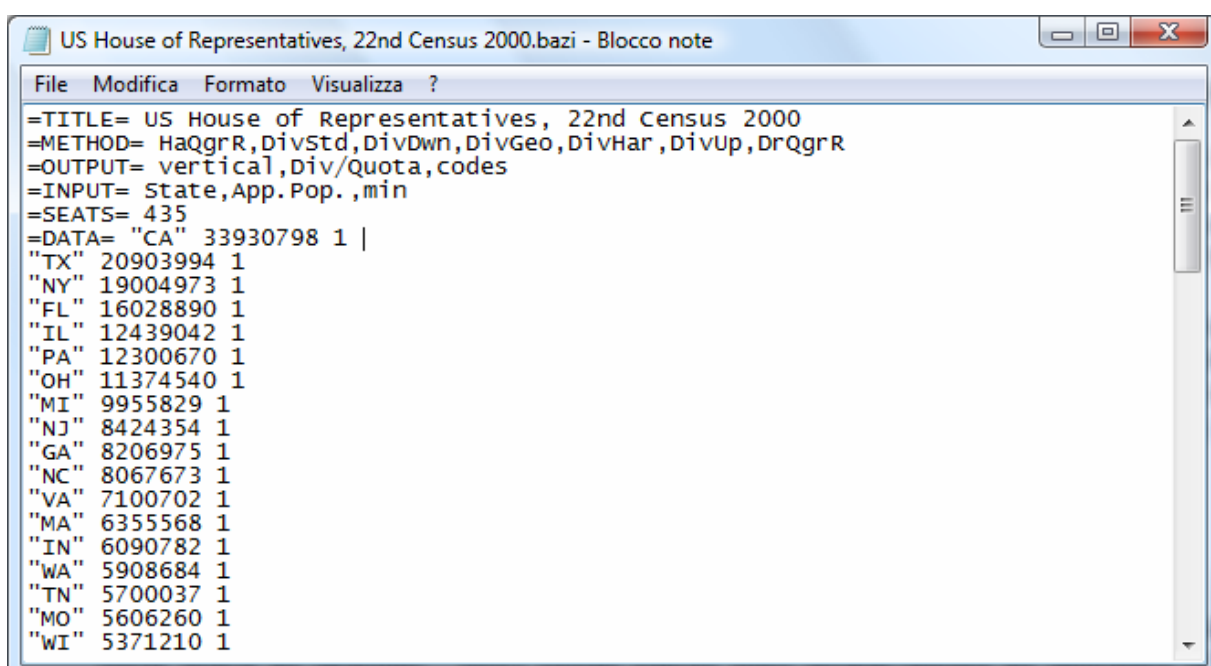


fig. 2: typical BAZI file.

## BAZI and Spreadsheet (example: Microsoft Excel)

BAZI file can't be easily transmitted and supported by spreadsheet and databases applications as every txt file (not in CSV format). BAZI format, in other words, isn't ideal for data exchange.

The idea of ABBaziE is to permit conversion from your XLS file format to the simpler BAZI format within the application by using the "From Excel To Bazi" option and permit conversion from BAZI (.txt) output to XLS format within the application by using the "From txt BAZI output To XLS" option.

## ABBaziE: A Bridge Bazi Excel

ABBaziE's graphical user interface is showed below.

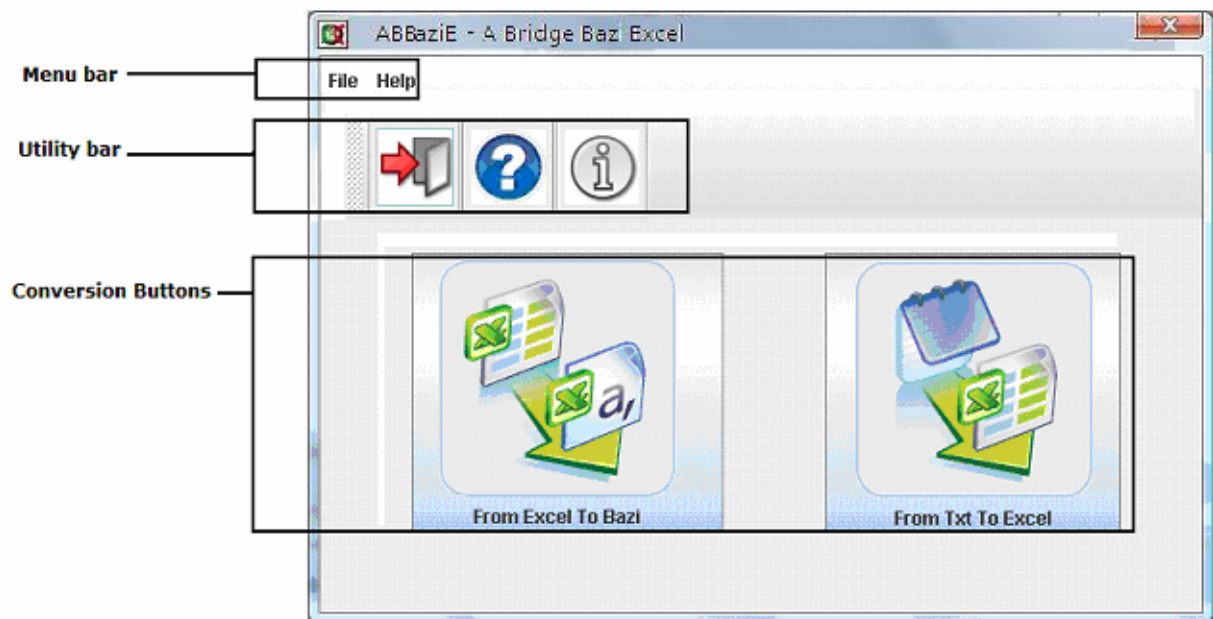


fig. 3: Start up graphical user interface

Through Menu Bar, user can:

1. show the application manual,
2. show application info("About"),
3. init the "From Excel To Bazi" conversion process,
4. init the "From Txt To Excel" conversion process,
5. exit from application.

Utility bar is a button container within user can rapidly access to (from left to right) exit, manual and info functions.

Conversion buttons show explicative image. If you press one of them, you can access one of two conversion process: "From Excel To Bazi" if you want make a Bazi file using data stored in excel file, "From Txt To Excel" if you want load data, stored in a Bazi output file, to Excel file.

## Converting XLS file format to BAZI file format

The file showed below (fig. 4) could be generated using “From Excel To Bazi” conversion process.

```

2001-1CircoscrizioneNazionale618seggi.bazi - Blocco no...
File Modifica Formato Visualizza ?
=TITEL= Census 2001-1: Assegnazione dei 618 seggi
=METHODE= HaQgrR, DivStd
=AUSGABE= vertikal, Div/Quote, kodiert
=MANDATE= 618
=EINGABE= Circoscrizioni, Popolazione 2001, ---
=DATEN=
"Piemonte 1"          2165619 24
"Piemonte 2"          2049058 22
"Lombardia 1"         3707210 40
"Lombardia 2"         3920190 43
"Lombardia 3"         1405154 15
"Trentino-Alto Adige" 940016 10
"Veneto 1"            2713294 29
"Veneto 2"            1814400 20
"Friuli-Venezia Giulia" 1183764 13
"Liguria"             1571783 17
"Emilia-Romagna"     3983346 43
"Toscana"             3497806 38
"Umbria"              825826 9
"Marche"              1470581 16
"Lazio 1"             3700424 40
"Lazio 2"             1411989 15
"Abruzzi"             1262392 14
"Molise"              320601 3
"Campania 1"          3059196 33
"Campania 2"          2642735 29
"Puglia"              4020707 44
"Basilicata"           597768 6
"Calabria"            2011466 22
"Sicilia 1"           2383132 26
"Sicilia 2"           2585859 28
"Sardegna"            1631880 18
"Valle d'Aosta"       119548 1
=INFO=
Dritte spalte: tatsächlich zugeteilte Sitze

Quelle:
Aline Pennisi / Federica Ricca / Bruno Simeone
Una legge elettorale sistematicamente erronea
Sapienza Università di Roma, Typescript, 2008

Bearbeiter: Friedrich Pukelsheim, 8. Oktober 2008
=ENDE=

```

fig. 4: Generated Bazi file

Press “From Excel To Bazi” button (1).

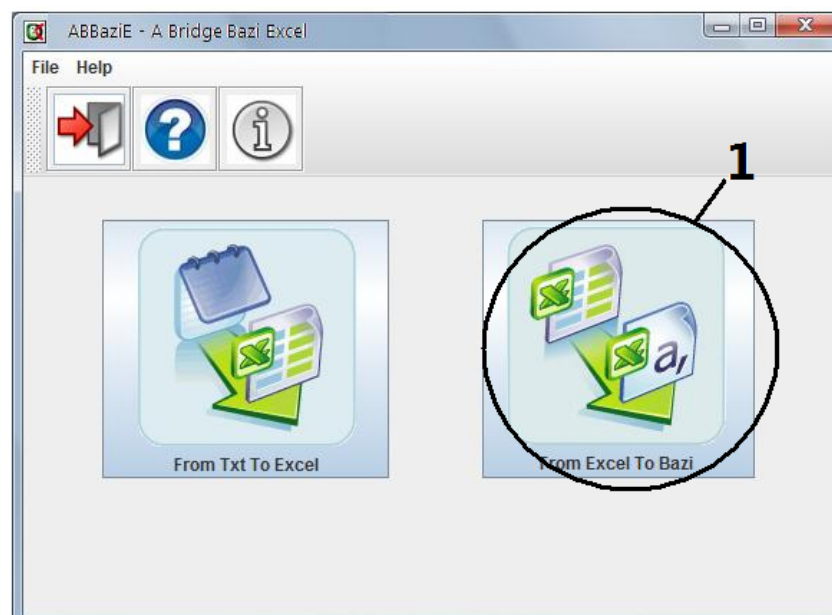


fig. 5: “From Excel To Bazi” button

System shows the frame below:

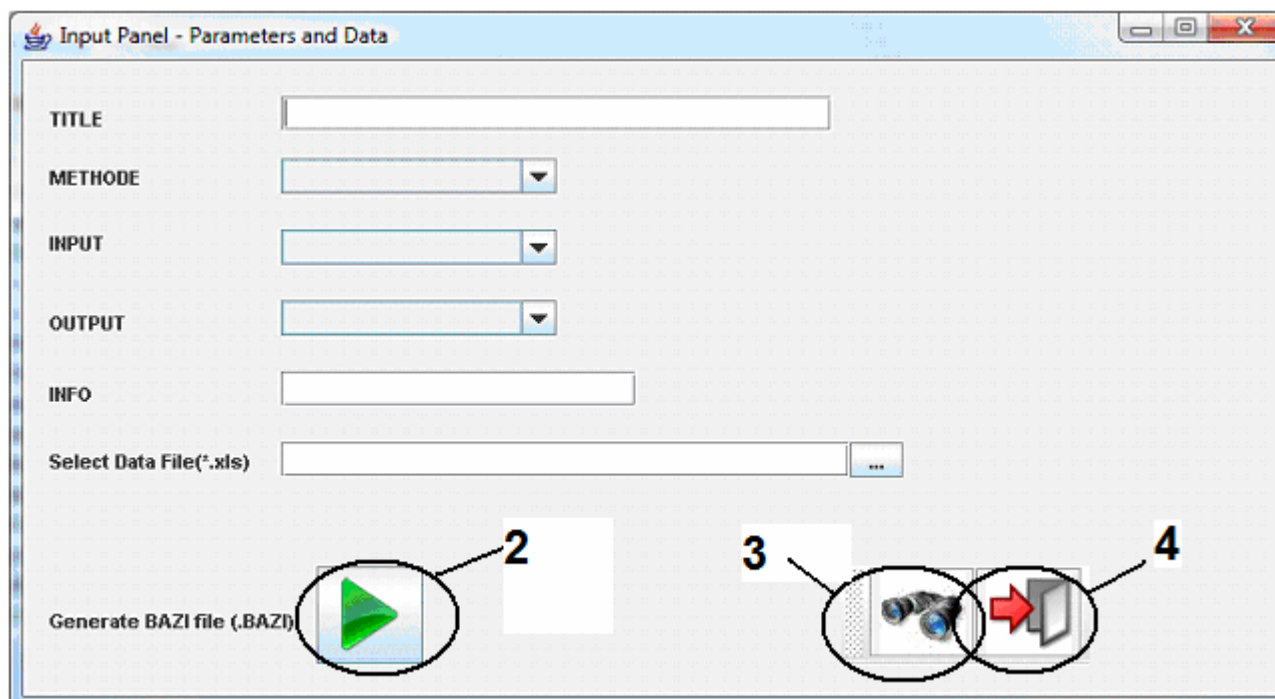


fig. 6: conversion frame

- set parameters as showed in fig 7:

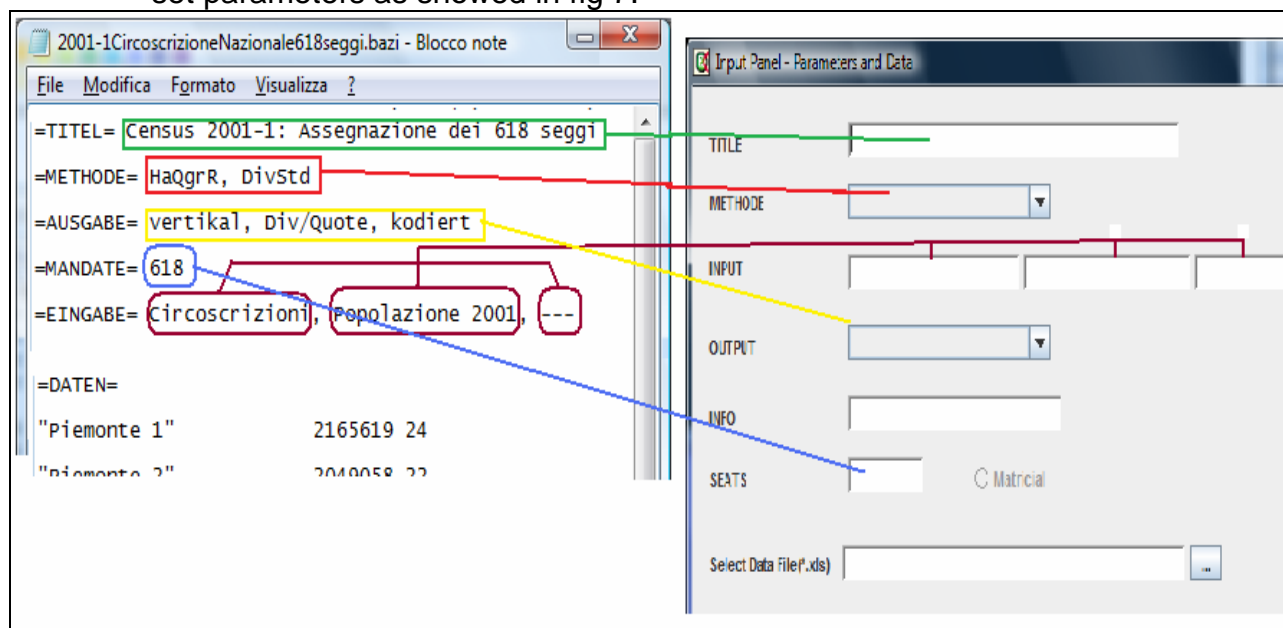


fig. 7: setting parameters

- format data in your XLS Input file as showed in fig. 8:

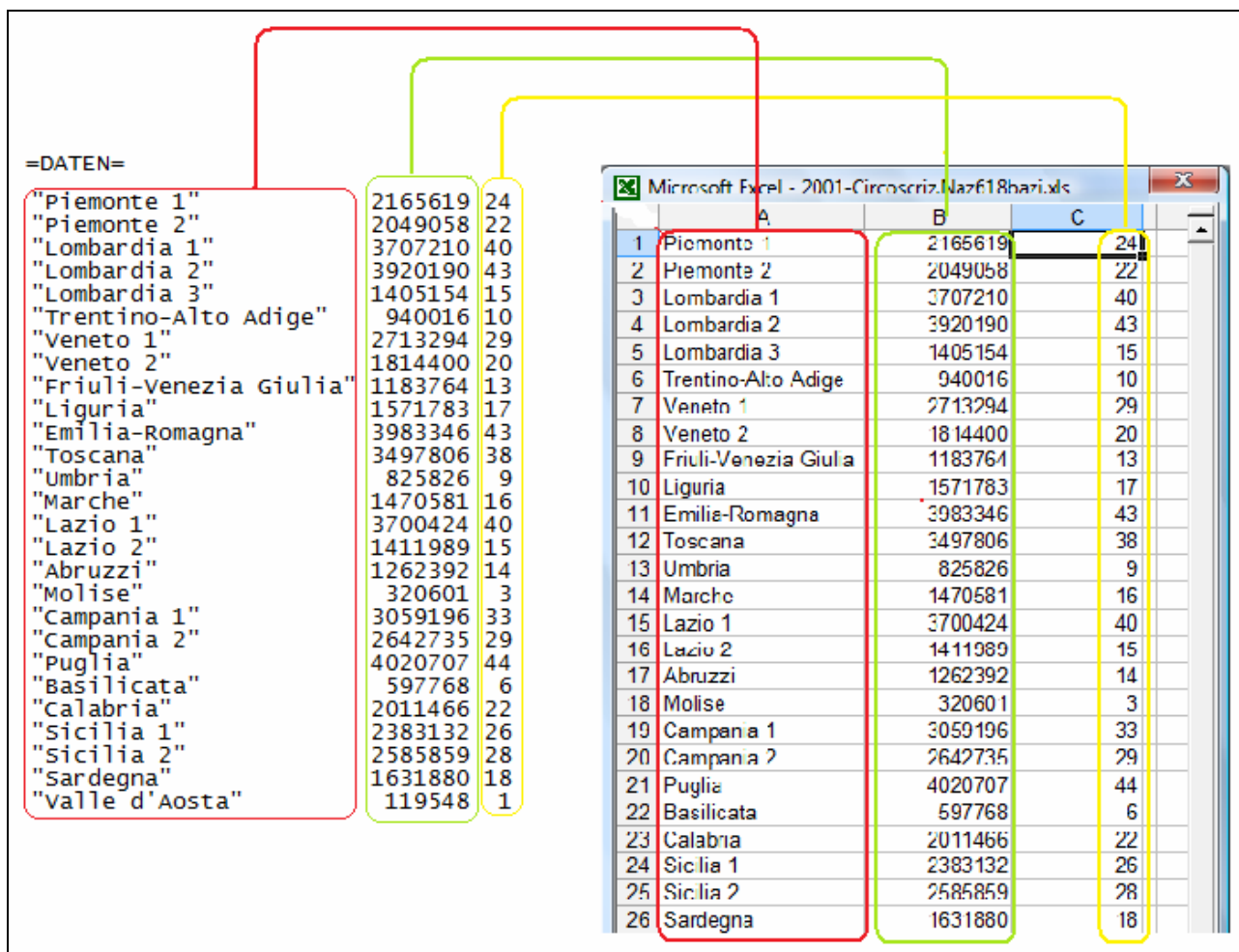


fig. 8: xls – bazi column mapping

- Select xls file (generated file, out.bazi, will be placed in the same directory):

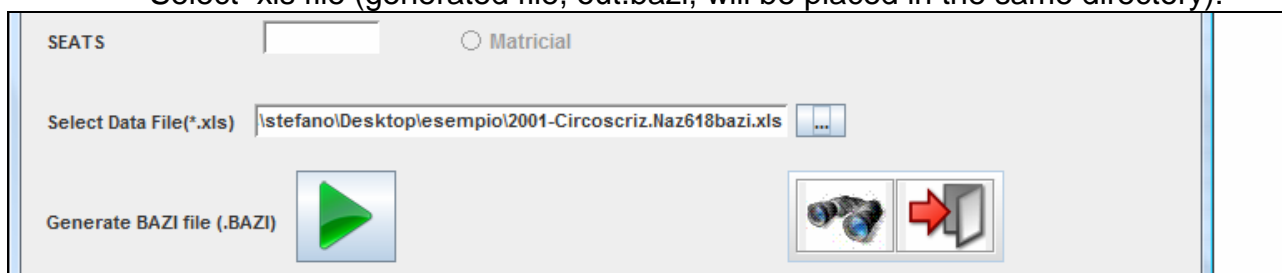


fig. 9: xls file selection

- insert info about data where showed:

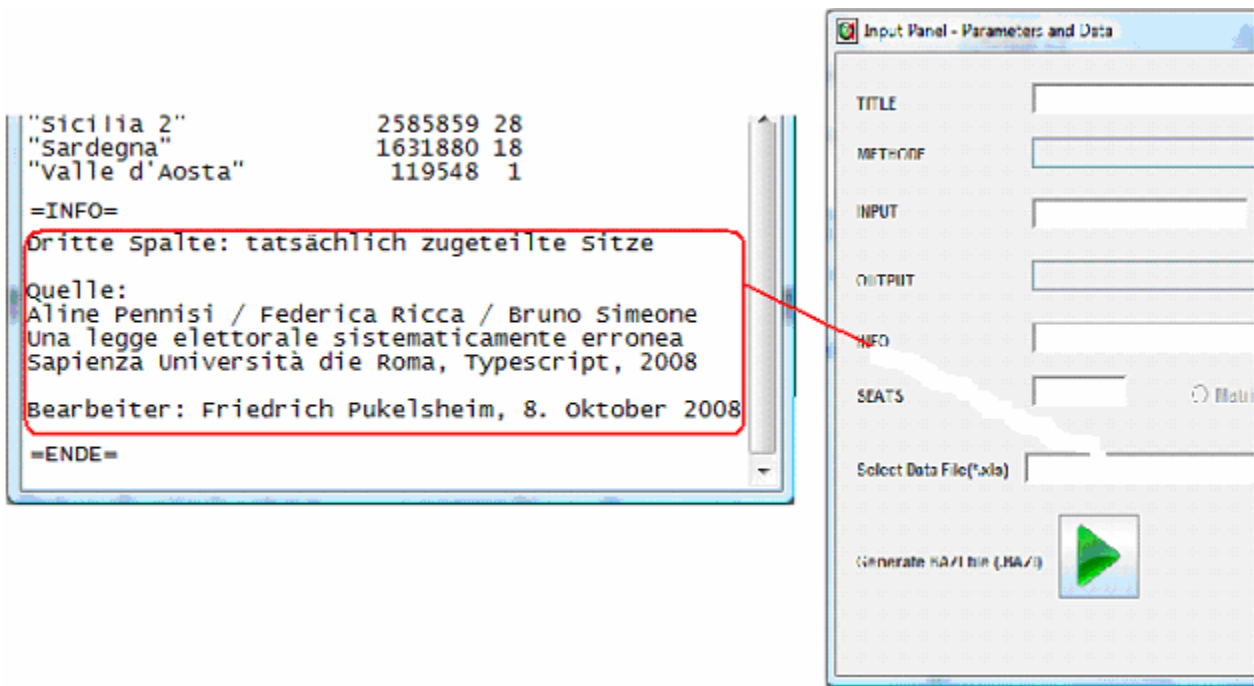


fig. 10: INFO

- click the button "Generate BAZI file"(2);

Optionally you could take an overview of results:

- click the button preview(3).

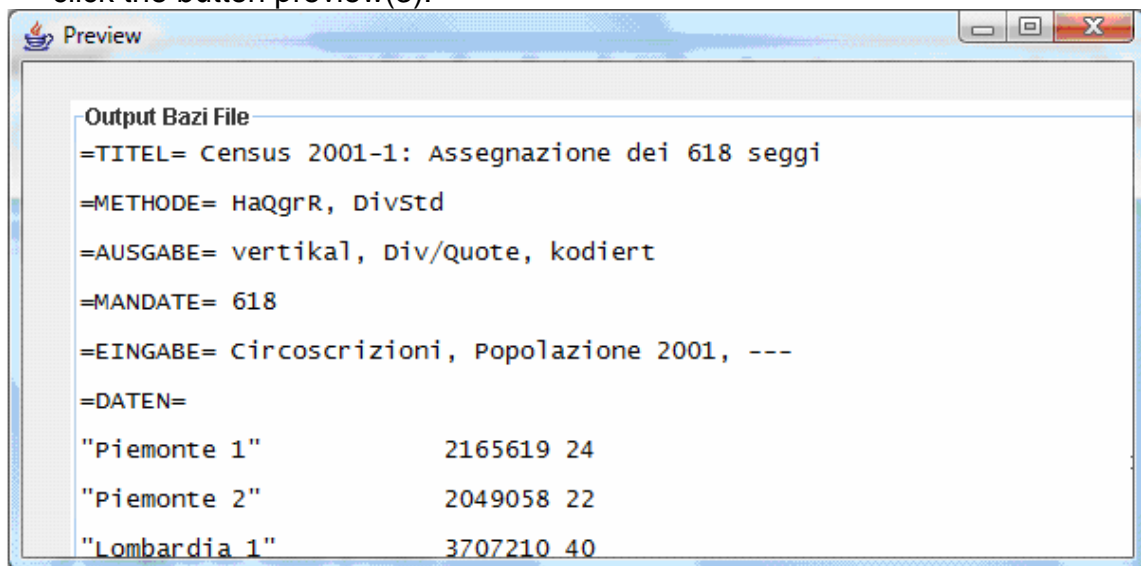


fig. 11: output preview

When the conversion process ends you can exit.

- click the button exit (4).

The name of generated file is out.bazi.

## Converting BAZI .txt output to XLS format

Press “From Txt To Excel” button (5).

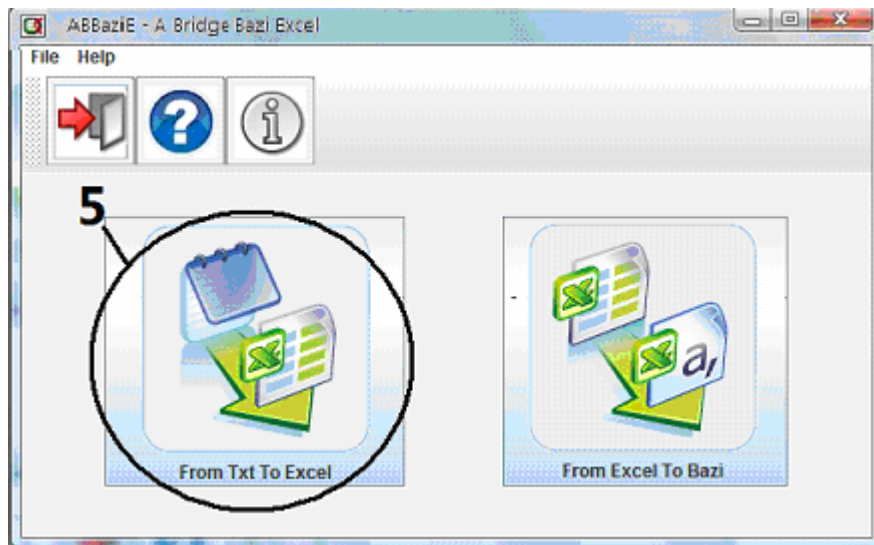


fig. 12: “From Txt To Excel” button

System shows the frame below:

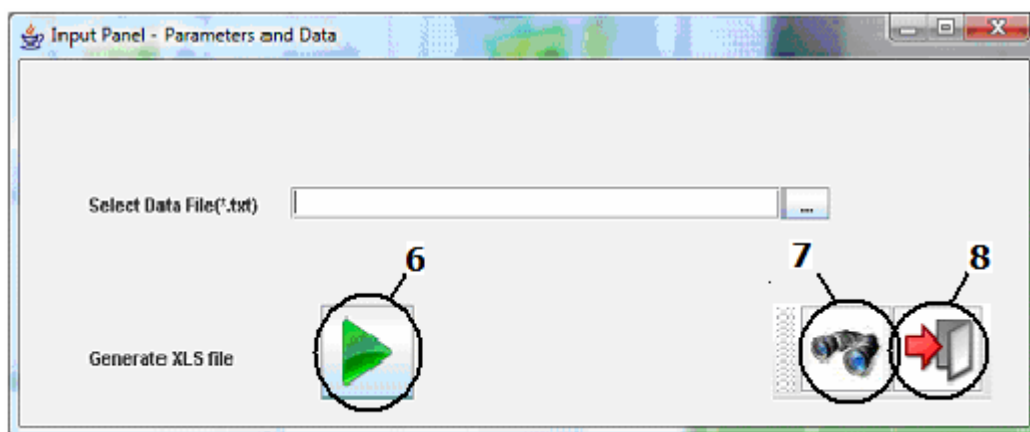


fig. 13: conversion frame

- select Input data file(output of Bazi application);
- click the button “Generate XLS file”(6);

Optionally you could take an overview of results:

- click the button preview(7):

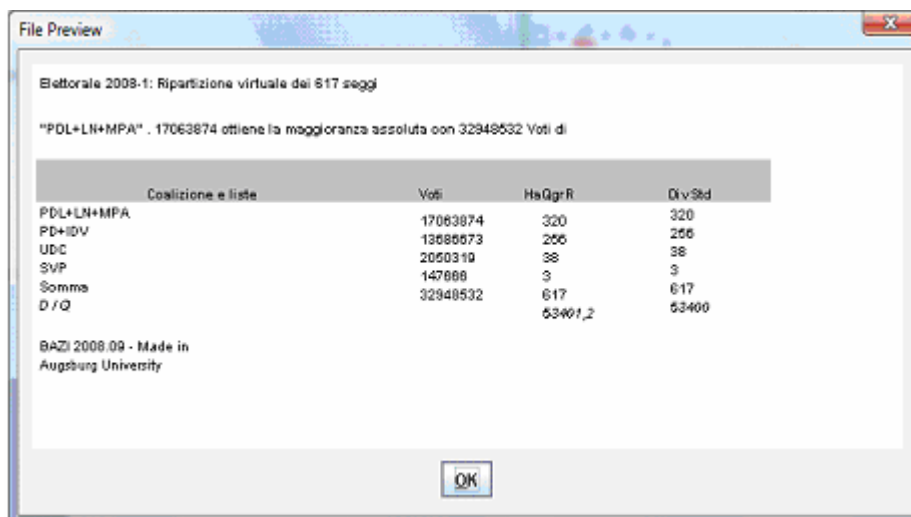


fig. 14: output preview

When the conversion process ends the system shows a result message box. Click "OK". Now you can exit or repeat the process.

If you want exit:

- click the button exit (8).

Generated file (fig. 15) will be placed in the same directory and same name of the input file but with ".xls" extension.

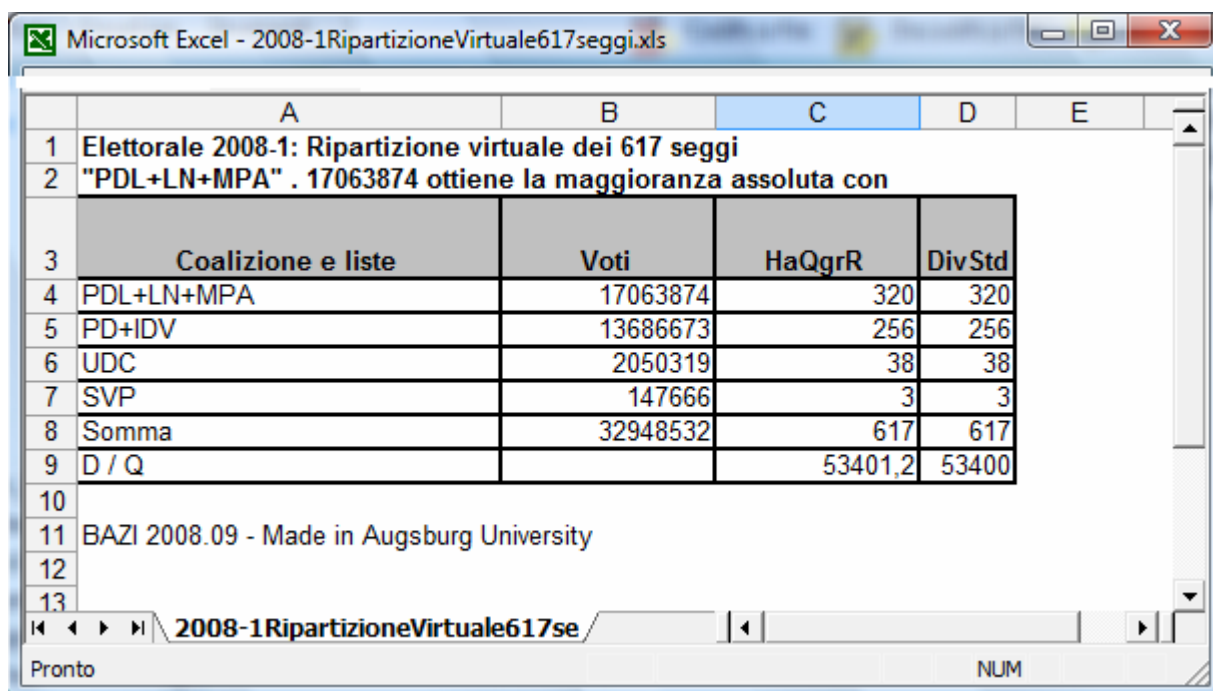


fig. 15: generated file (.xls)