

THE CREATION OF A DIGITAL DATABASE FOR THE LAND-BOOK REGISTRY

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Abstract: *The preservation of the old land-books has a special importance for the identification of the real estate in the integrated Cadastre and Land Registration system.*

The excessive use of the old land-books has lead in time to the deterioration of their pages, drawings and plans.

Our paper intends to present a digital concept for the storage, highlighting and use of the analogic database related to the old cadastre and land registration records.

Keywords: *land-book, land register, informatics*

1. Introduction

The importance of land-book records is well-known for the specialists in the field. The role of the records is to present a chronological correct situation of a real estate property, illustrated by the three fundamental functions of the cadastre: the technical function, the economic function and the juridical function.

The intense work with these precious documents leaded in time to their deterioration. A solution for their storage and the optimisation of the work is of significant importance for the authorised persons and institutions, including the local and central authorities responsible with the cadastre and land registration records.

The present paper aims to present a digital concept created for the storage, highlighting and use of the analogic database related to the old cadastre and land registration records.

2. Materials and methods

The current software allows a multitude of programmed functions, making possible to store, highlight and analyse with fidelity the digital databases. It is proved that the digital support presents specific functional capacities and also offers a large range of solutions.

For our approach, we chose two software systems. The first one is for the management of the created files, where the user accept the extensibility through plugins, and also for the connection of the external programs for the visualisation and editing of the files. The second software is for the calculation, management and analysis of the data.

As a first step, we scanned the files of the land-book and saved them as .pdf files. We also created the .xml files.

Next, we introduced in the data management software the two created files as observed as follows (figure 1).

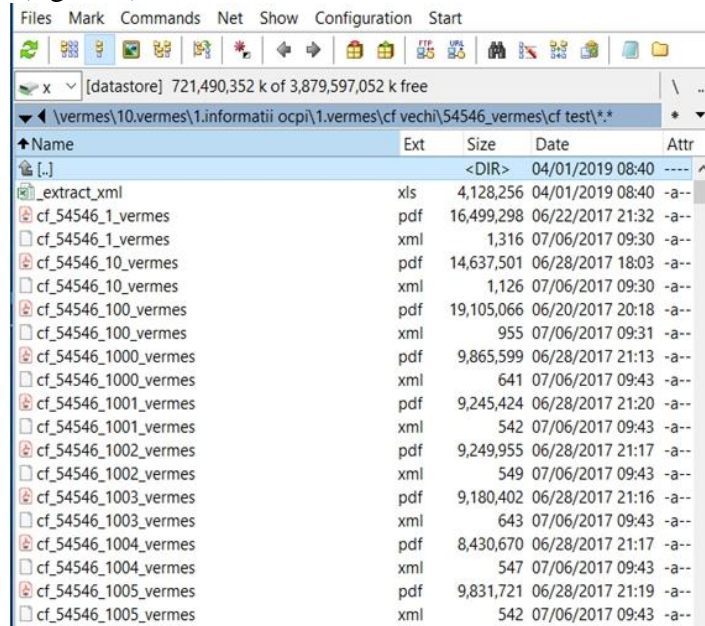


Figure 1: The import of the preliminary data

After introducing the management software, we passed to the new working method in the data calculation, management and analysis software, where, after introducing the created files, we deleted the .xml_data files, as observed below (figure 2).

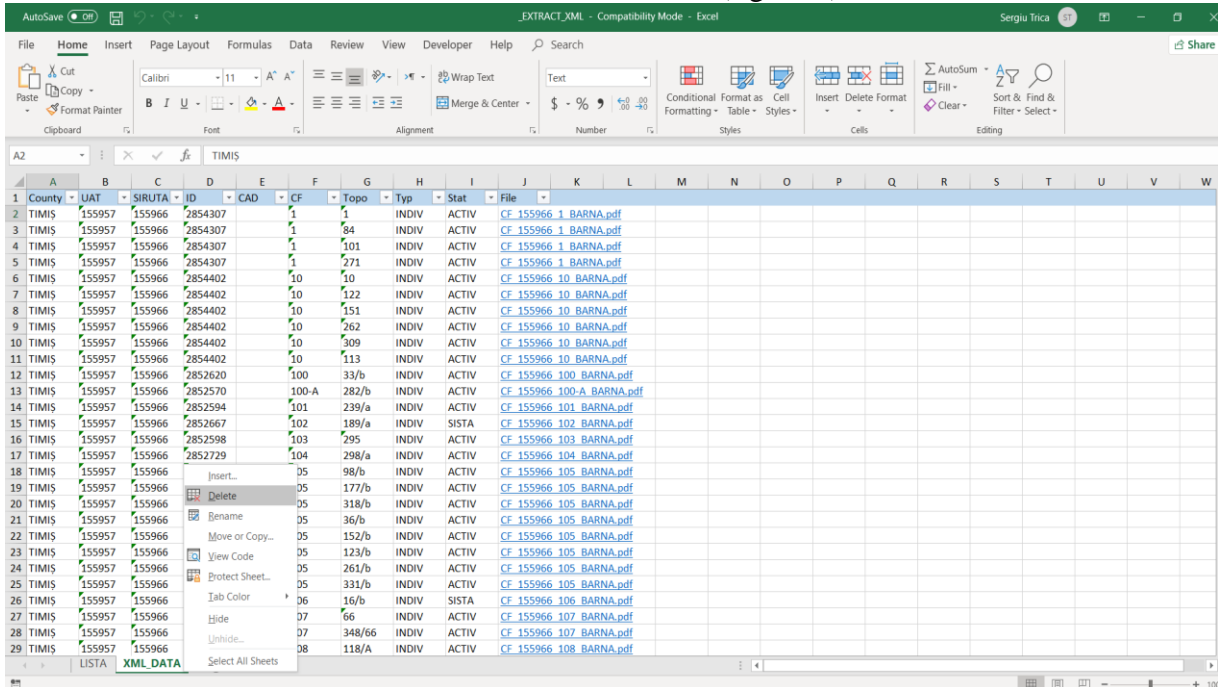


Figure2: The deletion of the .xml data files

After opening the data management software, we selected all the .pdf files and copied the .xml files as presented below (figure 3).

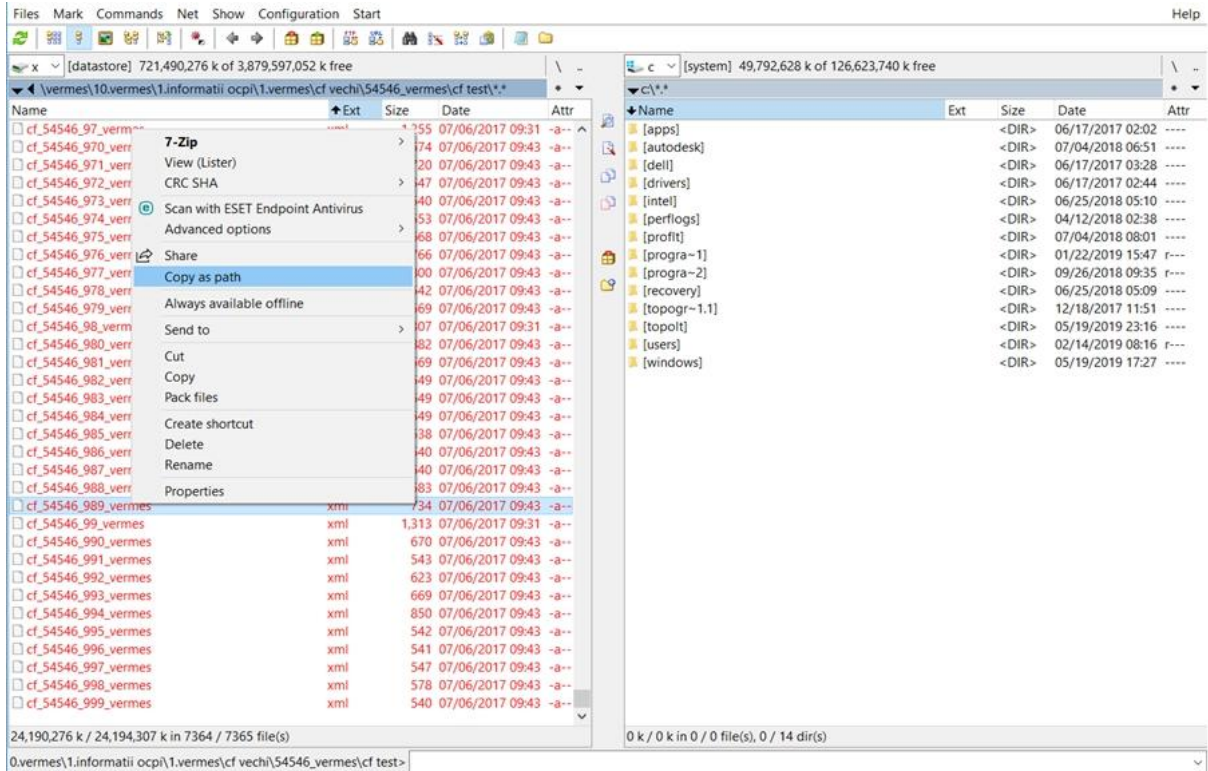


Figure 3: The selection of the .pdf file and the duplication of the .xml data

Next, the created page “List” is deleted and the new .xml files are added, as presented in figure 4.

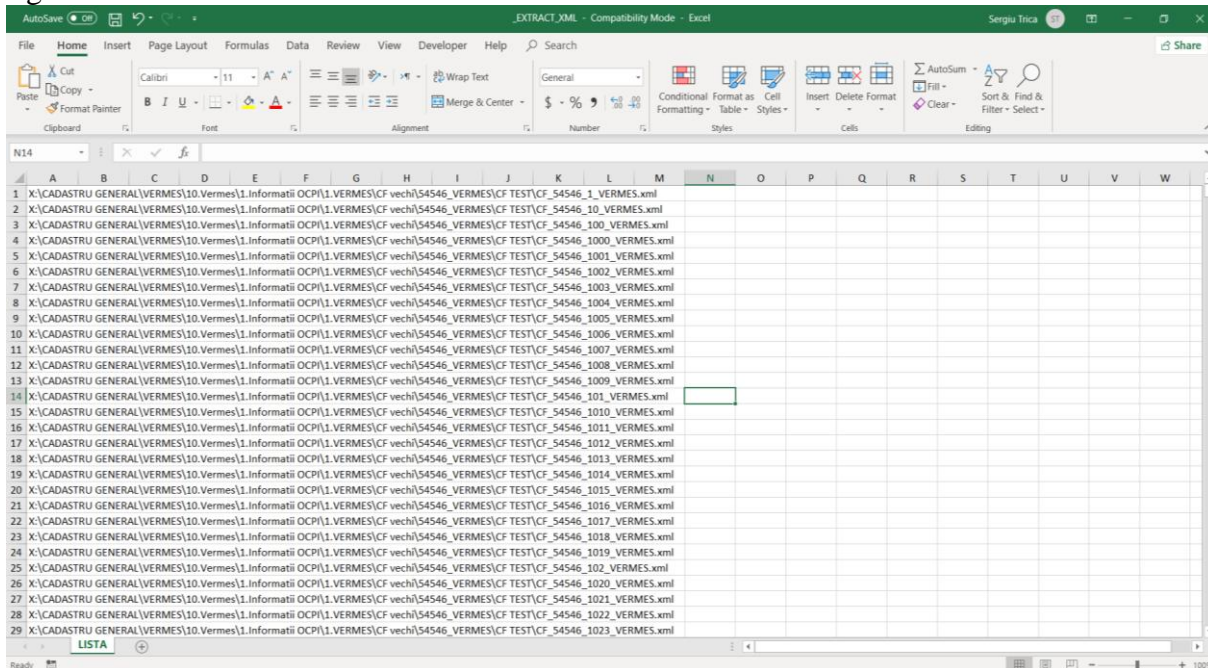


Figure 4: The addition of the new .xml files

After this operation, the path of the recent created files will be deleted and only the original name of the created function remains, as visualised in figure 5.

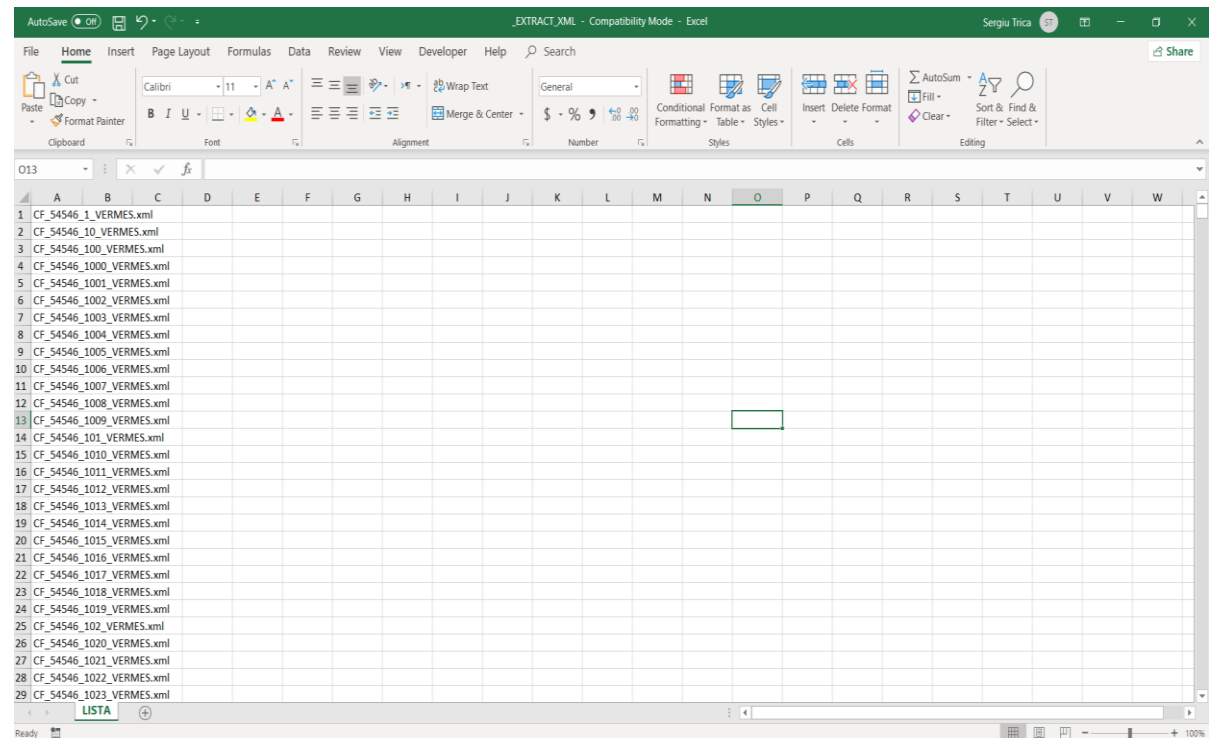
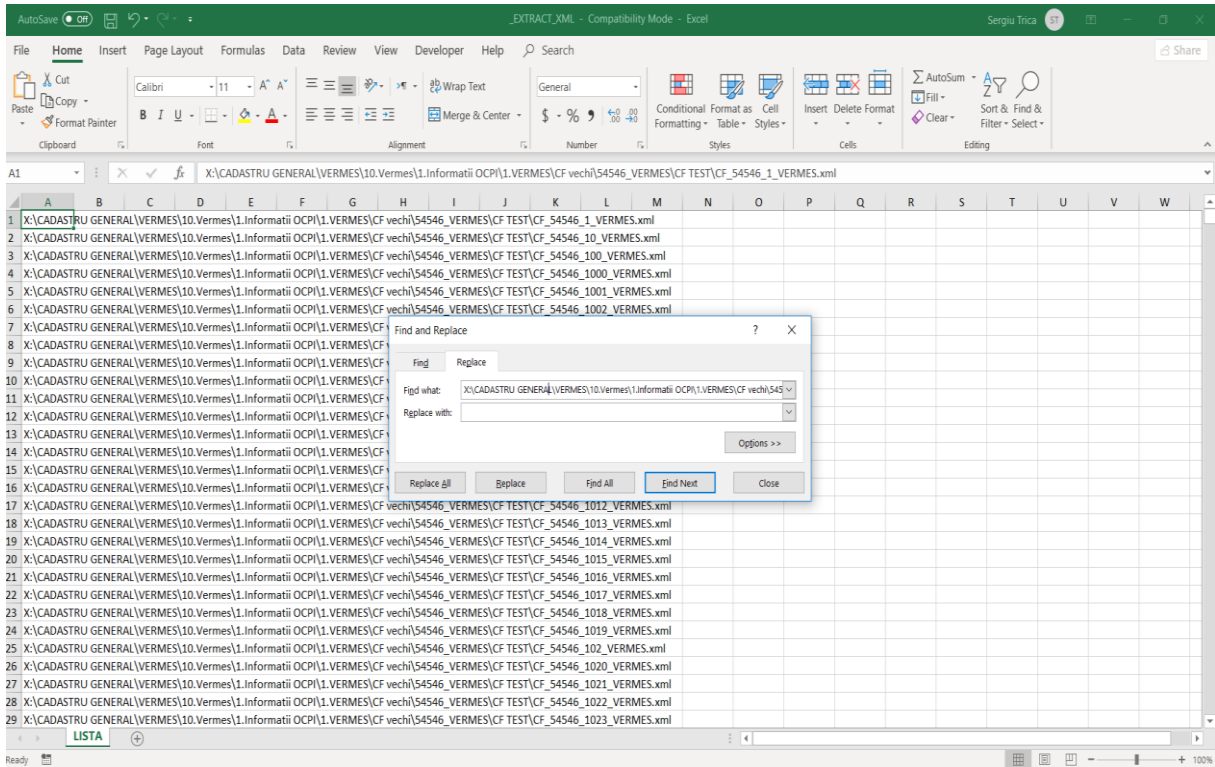


Figure5: Deleting the path of the unnecessary files and preparation of the folder for running the macro-command

After the previous step, by selecting the command View –Macros-View Macros (figure 6), the command for the running of the new data set .xml_data is generated, as observed in figure 7.

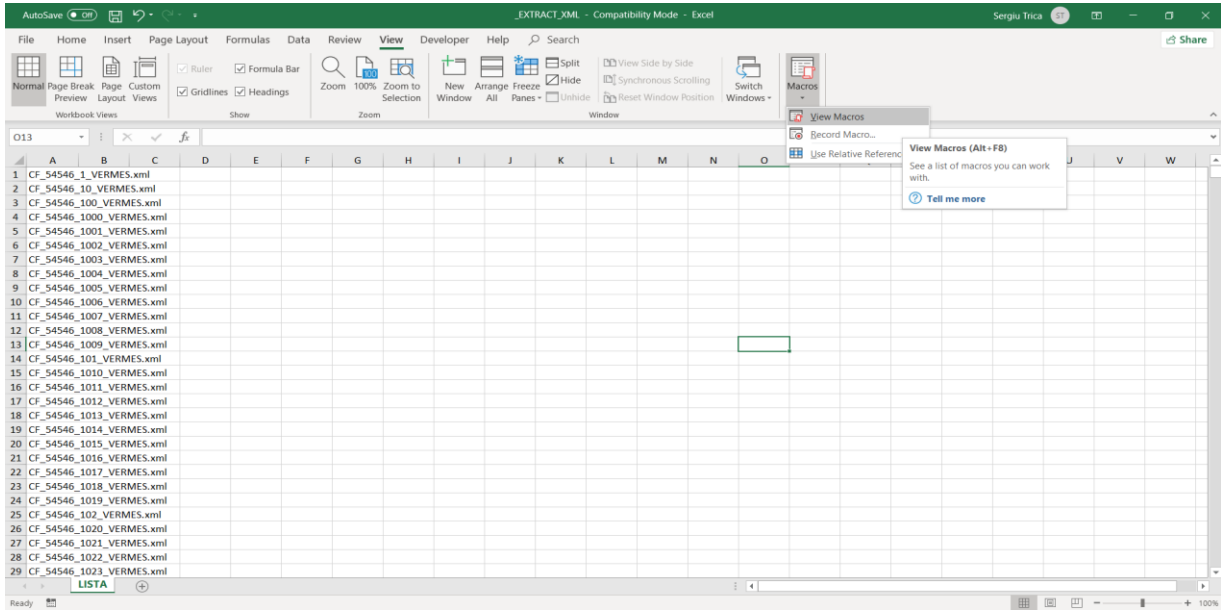


Figure 6: The command View –Macros-View Macros

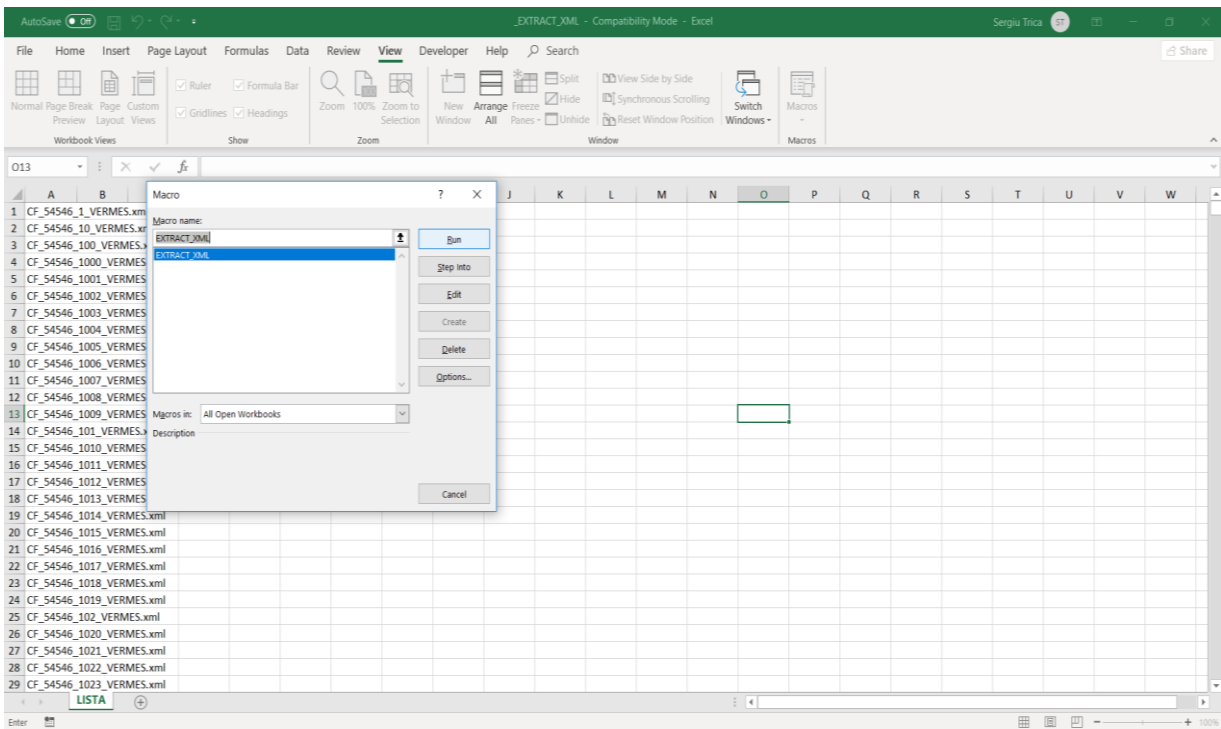


Figure 7: The running of the macro command for the automatic generation of a new data set

3. Results and discussions

After the previously presented steps, the final result of the general macro-command can be observed in Figure 8.

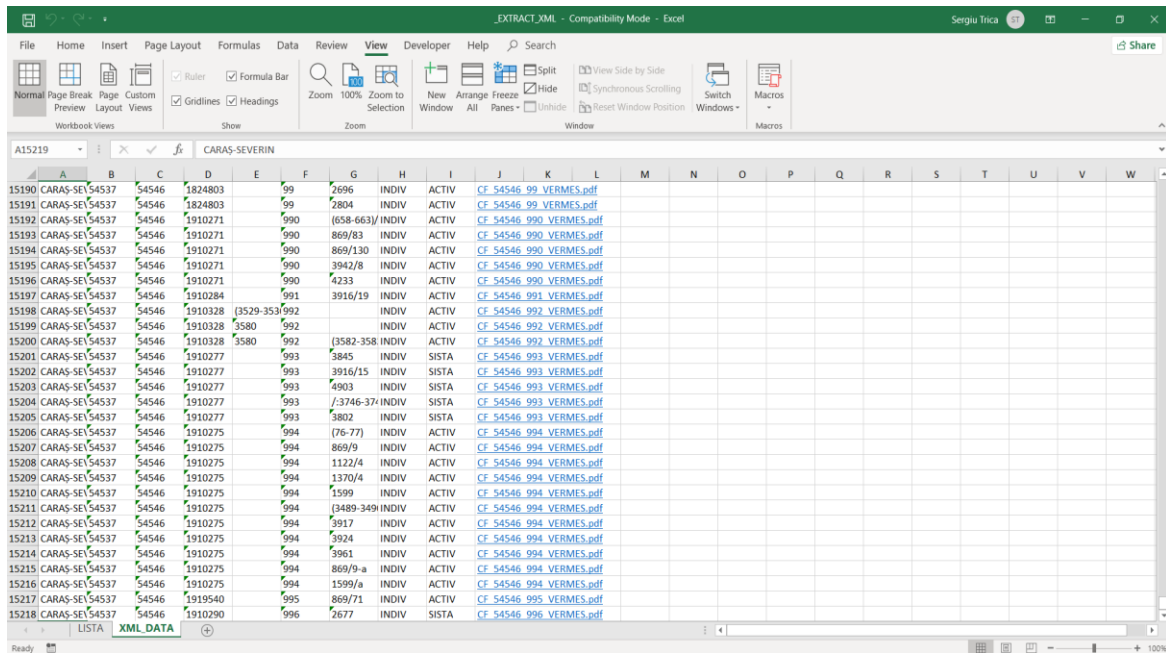


Figure 8: The final result of the generated macro-command

After the generation of the macro-command, we can visualize the page of the land-book with a simple click. Imagine 9 presents one of the pages of a land-book visualised in the application.

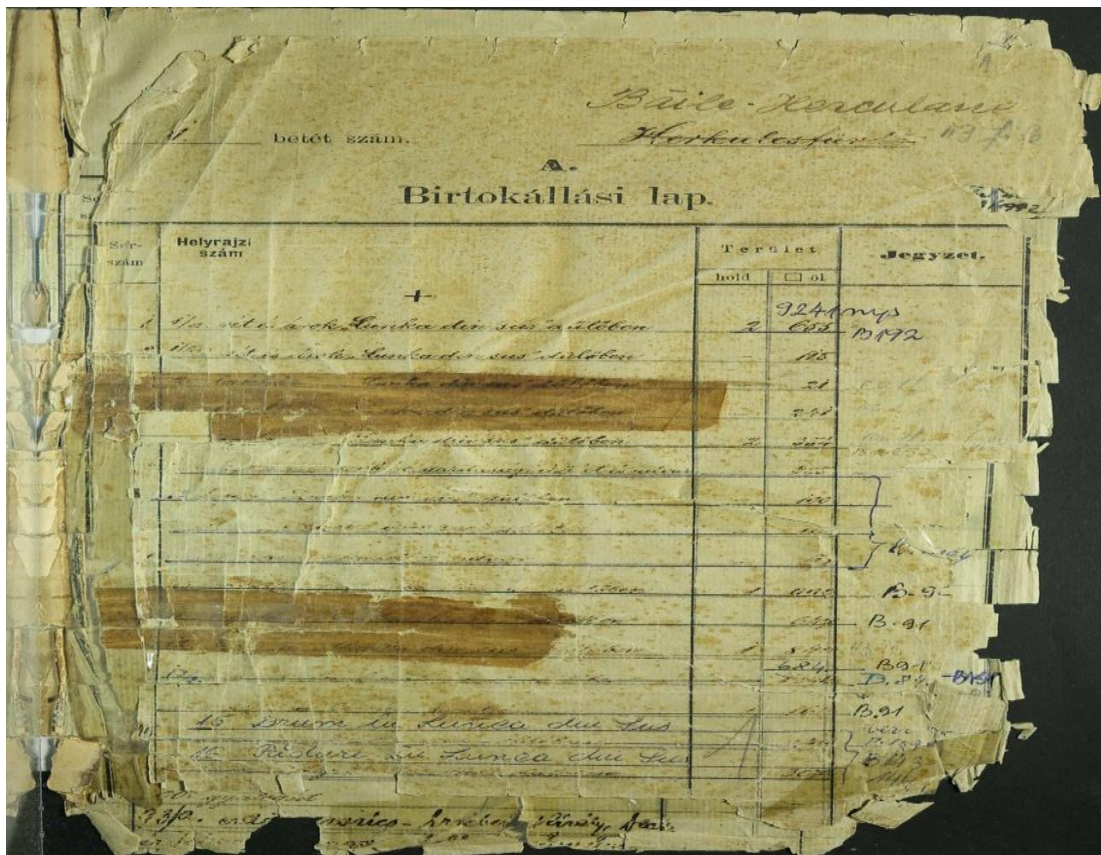


Figure 9: The visualisation of the selected page from the land-book

Based on the results, we can affirm that the created application represents an alternative to the application used by the institution responsible with the analogic land-book records. This variant does not require the specialisation of the direct user, due to the very simple and accessible functioning in accordance to the aim of its creation.

The application eliminates the risk of software piracy because is free and can be modified, adapted and use to the level of any local and central institution. Moreover, it can be used in a simultaneous connection by several specialised institution due to the creation of metadata.

We enumerate some of the advantages of the application:

- No costs for its purchase,
- Reliability and easy use,
- No need for specialised personnel,
- The possibility to modify and adapt it in accordance to the necessities of the user.

The app still has some disadvantages, among which we enumerate:

- The interoperability in real time of the modifications made in a “t” time,
- The permanent actualisation of the data in the Cadastre and Land Registry system,
- The impossibility to log in into the national database of the central institution, which is directly responsible with the land registry.

4. Conclusions

Analysing the international software possibilities, we can appreciate that, in the present context, they can offer a lot of benefices, responding to the needs of various users.

The presented soft ensures the following three functions: the storage, the highlighting, and the use of the analogic database related to the old cadastre and land registry records.

The present created application can reliably be used by the institutions working with the cadastre and land registry records and also by other types of users.

The applicability and the development of this application offer a series of advantages or the users. Thus, we consider as opportune its implementation by the local and central institutions.

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