

Automated LSTtoRTFtoPDF Converter

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ABSTRACT

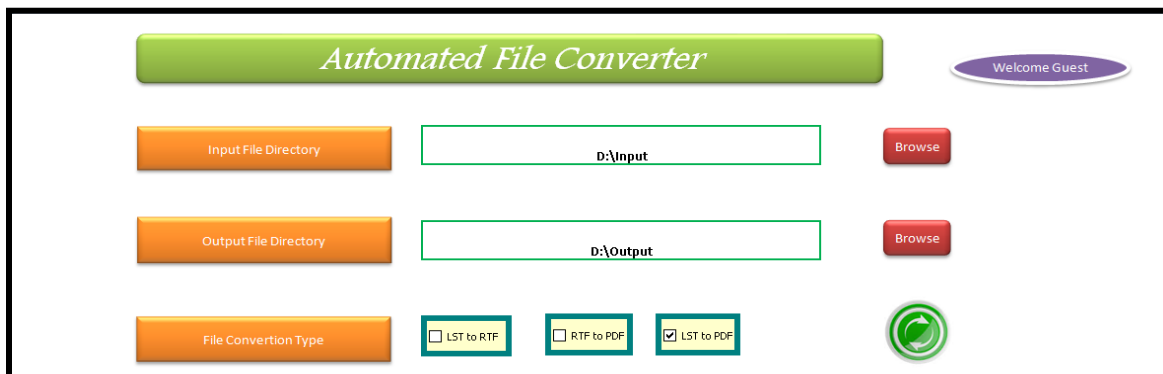
In pharmaceutical industry the reports are usually created in LST, RTF or PDF file formats using SAS either to meet FDA requirements or the client's. These reports files are created using the concept of ODS in SAS. These files are often required to be converted either from LST to RTF, RTF to PDF or LST to PDF for many reasons. To convert the files one has to manually open the file and save it in a required format, may use SAS or any third party software. Manual conversion becomes very tedious, time consuming and error prone when the number of files to be converted are more. There are plenty of papers that talks about the file conversion methods using SAS & VBA combinations which required certain level of knowledge on both SAS & VBA. In addition to that, one has to spend time in creating SAS and VBA programs as per the instructions explained in those papers. This paper introduces one more approach using only VBA to automatically convert any number of files into desired file format and users need not to have knowledge on VBA. All user inputs are controlled through an Excel which acts as an interface. Currently this has been tested for file conversion and will be enhanced for file compilations like making single RTF or PDF from multiple files.

INTRODUCTION

The PDF, RTF or LST file formats are universally accepted formats and each of them is having its own weakness and strengths. There is no clear guideline to suggest which one is better over the others. Even though these reports are created by SAS programmers but they are not the end users of these reports. These reports are mainly done for biostatisticians, medical writers and regulatory publications. Hence the selection of file format is purely depending on the requirement. As the clinical data is very highly confidential it is not advisable to use any open source software or it might be cost effective to go for the paid software. SAS can be used with PROC DOCUMENT which forces certain prerequisites when the reports are generated and requires the end user to have licensed SAS which is not always a cost effective solution for many firms. In those cases, it comes to the programmers for the file conversion which is done manually or using any software. The proposed approach requires only very basic knowledge like how to open excel file, how to do browse for input or output folder locations.

LST2RTF2PDF CONVERTER

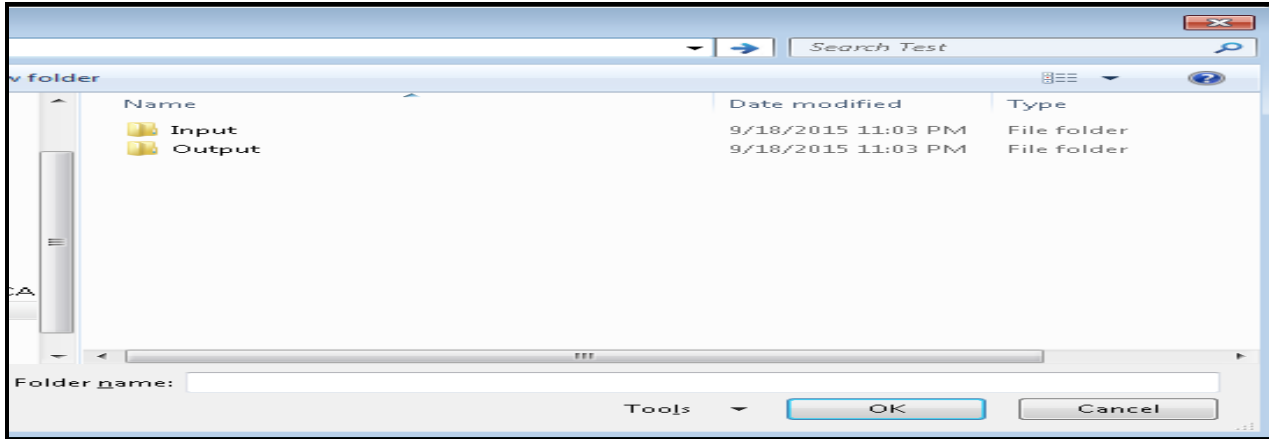
LSTtoRTFtoPDF Converter is an Excel VBA based product. For each and every action VBA macro programming, forms and controls methods are used to perform the intended task. The VBA macros are password protected and hence user does not have access to the codes. Due to the confidentiality the codes are not discussed here. The objective of this paper is to show that there is way to convert the files without much manual intervention and without using any paid software.




Display 1. Automated File Converter

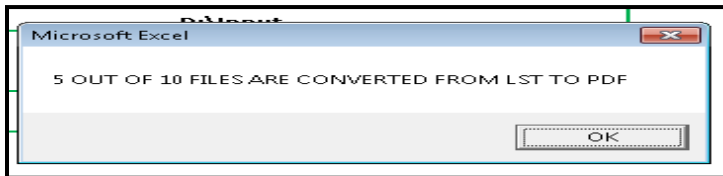
PROCESS FLOW

Typical clinical study involves minimum 100 of output files in the form of either LST, RTF or PDF. It is recommended to create a new folder and keep only the necessary files to be converted. The Excel based interface requires minimum three inputs from the user namely input folder location, output folder location and selection on the file type conversion. In order to avoid the manual typing for the folders, click on the browse button which opens a dialog box to fetch the file locations as follows.



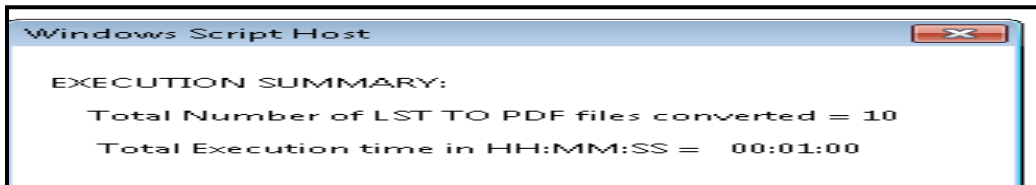
Display 2. Path specification

Once the minimum selections are done, click on the execution  icon to start the file the conversion. The total execution time will depend on the number of files and the file size. In case if all the file conversion types are selection then the order of the file processing LST to RTF , RTF to PDF and LST to PDF. During the execution phase a status message box is displayed to show the total number of files for which the conversion are completed , the number of files to be converted and type of file conversion.



Display 3. Status update

Once all the file conversions are completed it displays the overall execution summary as follows



Display 4. Execution summary

CONCLUSION

This paper illustrates how to make a excel VBA macro based tool for converting the files from one format to another format without much manual intervention and without using any paid file converted software. Further enhancement like staking of files is also available with the full version of the product. It is dynamic, secured and error free.

CONTACT INFORMATION

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