



PP09 - Creating a PDF file containing multiple outputs

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Problem Statement

Phastar need to expedite the production of a single PDF output from multiple sources in varying formats.

Without this facility, Phastar will need to manually produce this output which could differ depending on producer, project and delivery. This impacts consistency and utilises resource unnecessarily, which could impact SLAs and potentially delay the delivery of outputs.

Phastar need to provide a solution that is consistent and reliable, which utilises Base SAS functionality and takes into consideration Business and Client Requirements.

Requirements / Constraints

- Windows Server 2012
- Easy of use and repeatable
- Output Title used as Hyperlinked Table of Contents (ToC)
- Bookmarks displaying output title
- Respect formatting options, e.g. paper size, orientation, of source files
- Respect page numbering of source files
- Order files using output number – may not be based on filename

Research

Option 1

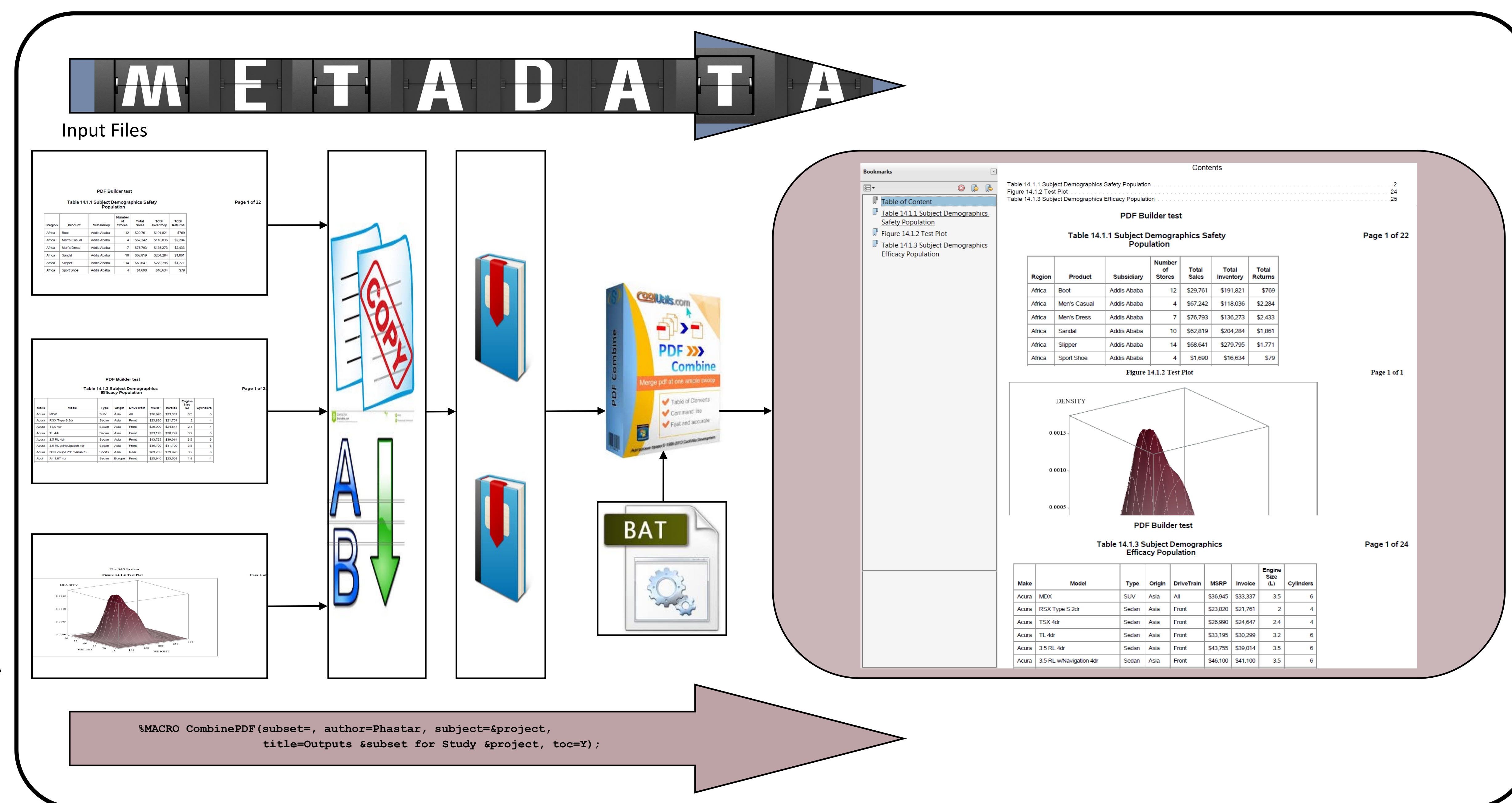
Use SAS ODS Document and replay the objects to create combined PostScript, RTF or PDF files, following Coar

Option 2

Create flat text files, then use combination of GhostScript and Windows functionality to create the PDF file

Option 3

Create individual PDF files using SAS ODS and combine using “PDF Combine”



Implementation

1. The QC tracker is accessed to get the titles and output file names
2. The selected PDF files are copied and renamed to ensure order of files reflects TFL numbering
3. Titles output, in same order as TFLs
4. Windows batch file to run “PDF Combine” created
5. Batch file submitted and single PDF file created

Conclusion

The chosen implementation allows users to quickly and repeatedly combine individual TFL output files into a single PDF file with a hyperlinked ToC and hyperlinked bookmarks containing the text of the first title for each TFL.

References

Coar, W. “TFLs: Replaying Rather than Appending”, PharmaSUG 2013, Paper PO16

CoolUtils.com <https://www.coolutils.com/PDFCombine>