LIBRE SCENARIO TESTING EXAMPLE

This document is an example of a scenario test, and reporting of results. It is written for education purposes, but is designed to find relevant problems in LibreOffice.

Background: If LibreOffice is to take market shares from Microsoft Office, it is important that Microsoft documents can be converted easily. I have a complex document with a lot of formatting, and decided to do a scenario test, since I saw that the result wasn't exactly the same.

Scenario testing is suitable since it is not only functionality issues that matter, it is also important how they are experienced and how they can be worked around.

LIBREOFFICE WORD COMPATIBILITY SCENARIO TEST

Purpose: Investigate if complex Office documents can be converted to LibreOffice, and look equally good.

Setting: Train ride from Stockholm to Karlstad. 2,5 hours available, including interruptions. New Ultrabook, sound turned off on machine. Office 2013, LibreOffice 4.1.3.

Actor: Rikard, software tester, advanced Office user, novice LibreOffice user, technically savvy, attention to detail, allergic to usability problems, author of The Little Black Book on Test Design.

Objective: To convert Word version of The Little Black Book of Test Design into a LibreOffice document that can produce good-looking PDF-booklet.
We know the document won't become exactly the same, so how long it will take to "fix" it, is important.

Motivation and emotions: Rikard might switch to LibreOffice for his software testing material, and is curious about the capabilities for conversion of his Microsoft Office documents.
He has a lot of others things on his mind, so there is a risk of losing focus, and temper.

Plot:
1. Open PDF The Little Black Book on Test Design in Adobe Reader, to use as oracle.
The document is 32 pages long, includes images, many footnotes and formatting to be printer-friendly.
2. Open .docx file in Word and re-save also as .doc and .rtf (to have three documents to compare, maybe one of them is better suited for LibreOffice.)
3. Open .docx file in LibreOffice writer, and look at all pages quickly
4. Produce a PDF and compare visually with original PDF. Write down differences.
5. Do the same with .doc and .rtf document, continue to work with the "best" one.
6. Edit formatting to produce a document that still is 32 pages. It doesn't have to be the exact same font, size, alignments, distances; but it has to "look good".
Write down any actions that feel cumbersome.
7. Now and then, produce a PDF to see that the end result gets better.
8. When the document is deemed good enough, put up the PDF on a web site.
9. Download and inspect the document at one other computer, and two mobile phones.

Evaluation: How long does it take to produce an equally good PDF?
Does Rikard still want to try using LibreOffice?

Events: Switch to Exploratory Test Design tutorial in PowerPoint format, with the same purpose.

Test execution

Performed the test at 12 November 2013.

Preparations

Installed LibreOffice 4.1.3.2 on Windows 7, 64-bitars Samsung Series 9 Ultrabook. Typical installation that caused no problem.

Loads the PDF in Acrobat Reader to have as oracle.

Creates three input files (.docx, .doc, .rtf)

Details: Font: Constantia 10 (8 in footnotes), Posters are using Cambria 9
Custom margins, e.g. 37 Sources have 0.59" in top and bottom, and 0.79" to the left and right.
Quality Characteristics have 0.5" on all sides.

There are no warnings in Word when saving as.rtf and .doc. PDF exported from .rtf looks good.

Files are available in "input" folder.

LibreOffice

Starts LibreOffice Writer and language is Swedish, good.

Opens .docx-file (which is most modern, and probably most important)) which is 41 pages. Some problems are apparent when comparing with oracle:

Problem 1: Pages doesn't fit. Title "On Test Design" does not fit on one line. The margins are not the same as in Word (0.79, 0.79. 0.79, 0.49 – the last one should be 0.59)

Problem 2: Same page margin for all pages, in Word there are different margins for different sections.

Problem 2b: Usability: Difficult to find where to change page margins, finally found right-click, Page, tab Page.

Problem 3: For each footnote there are four extra newlines.

Problem 4: Footnote 54 and above have a newline after the footnote number.

Problem 4b: It is not fast to fix the footnotes reliably, so I delete the newlines manually. It took about 10 minutes, and I feel a bit annoyed.

Problem 4c: When I reload the saved document, the first space in footnote text has disappeared (text too close to footnote number.) A couple of more minutes of work …

Problem 5: Footnotes have more space between rows than oracle. I find no way to change this (I want them to close to each other.)

Problem 6: Some page breaks have disappeared (especially for the Posters.)

Problem 7: Strange page break between Test Execution Heuristic 14 and 15 (page area is wasted)
Note: This was automatically fixed when opening the document later.

Problem 8: All text is not visible in table cells for 37 Sources. Fixed manually in two minutes, good operability on that one.

Problem 9: The vertical test in 37 Sources is not aligned in the same way. This was tricky to fix. Had to use Cell, On Top, plus remove Paragraph, Indentation, and add two spaces for it to look good. On the other hand, the result became better than in Word.

Problem 10: Table of Contents refers to wrong page numbers (fixed when updating table.)

Problem 11: The borders around Posters have disappeared.

Problem 11b: Can't figure out if it should be possible to be able to set page layout (margin and border) for specific pages (bigger "break" than page break?) I have to live without borders, and customized margins.

Problem 12: Red triangle in text boxes ("software testing inspiration" et.al.) on page 3. Looks like an extra newline. Easy to remove manually, but hard to understand what it meant.

Problem 13: Can't remove the red triangle for QR Code on page 10.

Problem 14: "Software Quality Characteristics" can't fit the same amount of text on one page, due to page footer. Disabled that one, and it looked good (but it felt dangerous as Libre Office said that information would be deleted.)
This solution is not optimal, since page numbering disappears.

Problem 14b: Put page numbers back, but found no easy way to get book layout (different adjustment on left and right pages.) With page numbers I get too many pages again, so I remove them …

The .rtf file has even more problems that I won't delve into.

.doc file is better for some things (footnotes, borders) and worse in others (table of contents only at top level.) This one would probably be faster to fix.

Continuing with the.docx, and try to fix all problem (interesting observations added above.)

Created a PDF without changes, one PDF half way through, one when I felt finished, and notes more problems:

Can't see any difference between 100% .jpeg-quality instead of 90 which is default (but picture quality isn't very good in Word either...)

Problem 15: text in text boxes is cut off at bottom of the produced PDF. Maybe need more margin for borders in LibreOffice? Fixed by using bigger text boxes.

Problem 16: Page number in table of contents is not shown in exported PDF. Possible side effect of changing page margin. Fixed by updating.

Problem 17: Get an unexpected error message when choosing "Show PDF after Export":
"Can't find file C:\work\software_testing_projects\writing\scenariotesting\output\tmp.pdf. Make sure you entered the correct name and try again."

Problem 18: If you look carefully at the created PDF, the text isn't equally good looking. It is slightly, slightly blurred, and doesn't give a light and elegant impression. Might be because the PDF is much smaller, 425 KB instead of 1323 KB (smaller size is good!)

Problem 19: Page 23 has a lonely word – "everything." Fixed by doing hard line break (not Shift+Enter.) At least partly authors mistake.

I'll stop here and publish a PDF on the web to have a look at it in a smart phone (same appearance as on computer.)

Overall judgment

The whole process took longer than I expected. It is too many things that have changed; some things took too long time to fix; and some things I didn't manage to fix. To use .doc file looks a bit more promising, but should that really be needed?

I am not happy with the end result, and will stick with Word.

Rikard Edgren, 13-november-2013, translated 7-march-2014