

An Interoperability Improvement in LibreOffice Impress Tables

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The Problem (on the surface)

The image shows two overlapping windows from LibreOffice Impress. The left window, titled 'table-shadows.pptx - LibreOfficeDev Impress', displays a table with the following content:

operating system	Yes
fridge	No
Cola	Yes
Fanta	Yes
Sprite	Yes
Sandwiches	Yes

The right window, titled 'Show Review View Help', displays an identical table, but with a grey background on the empty rows:

operating system	Yes
fridge	No
Cola	Yes
Fanta	Yes
Sprite	Yes
Sandwiches	Yes

Blue arrows point to the empty rows in both tables, highlighting the visual difference between the two presentations of the same data.



Preliminary Information

Layouting a table:

- The table is fitted (if possible) into the given height.
- Row heights are adjusted proportionally
(with a minimum height to fit the text inside)

PowerPoint exports the text properties for an empty cell inside EndParaRPr (End Paragraph Run Properties)



The Problem (in detail)

Can be divided into three:

- Row sizes imported are problematic
- Empty cells can't import text sizes (from EndParaRPr)
- Previous range of fixes related to PPTX table row heights, has caused some regressions



Row sizes imported are problematic

PowerPoint exports the “desired” row heights:

- If the row height doesn't fit the text inside it, we need to adjust the row height during import.

The fix:

- We can layout a table without constraining it with an area.
- So let's do that on import to determine the “correct” total height.



Empty cells can't import text sizes

EndParaRPr (text properties) is imported into empty TextRange

- When something is typed into the empty cells, they are ignored.

The fix:

- Push the imported text properties into the cell's property set too
- Additionally export these from the cell's property set correctly.



To finish up

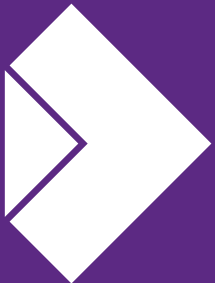
Now it was possible to revert previous range of fixes that caused regressions

- Basically the problems they fixed was re-fixed but this time without changing behaviour of the table layouting code.

Some additional unit tests were added.



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Thank you!

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