

Improved Fontwork Text Placement

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Technical Day
COOL
days





The original bug:

Old Impress:

a a a a a a a a a
a a a a a a a a a
a a a a a a a a a
a a a a a a a a a
a a a a a a a a a

more/less space
between characters

PowerPoint:

aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa

same space between
characters

New Impress:
(After my fix)

aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa
aaaaaaaaaaaaa



The problem:

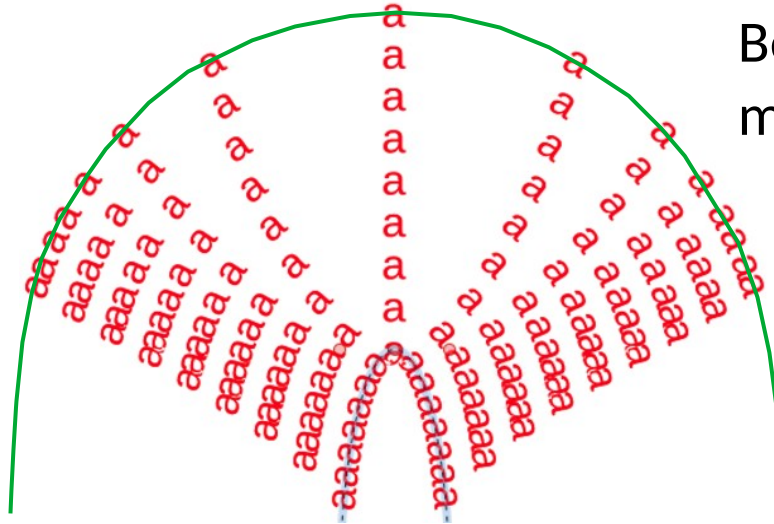
aaaaaaaaaa
aaaaaaaaaa
aaaaaaaaaa
aaaaaaaaaa
aaaaaaaaaa



- First: Calculated char positions (and how many fit into a line) in a non curved rectangle. (shorter/longer lines?)
- Calculated only 1 curve. (Marked with red line) Character positions are good there.
- Characters on other lines, are calculated as they would be on the original line. (Same amount of chars fit into every line) Character position are scaled. (added their normal vector * line difference)



It is not exactly scaling.



Before
my fix

After
my fix



- Inner (blue) curve form is very different from outer curve (green)
- Every curve must be calculated.
- Rewrote character position (and alignment) calculation



The impossible case:

Align to Top



- Inner curves usually become shorter.
0 / negative long curves?
- MS PowerPoint avoid this, by not allow to set vertical alignment. Automatically use that result only outer curves.
- LibreOffice allow setting vertical alignment to result inner curves.
- My fix works as long as the text fit in the shortened curve. If text not fit, I tried to keep the way it was before. (to avoid regressions)



Future improvement possibilities:

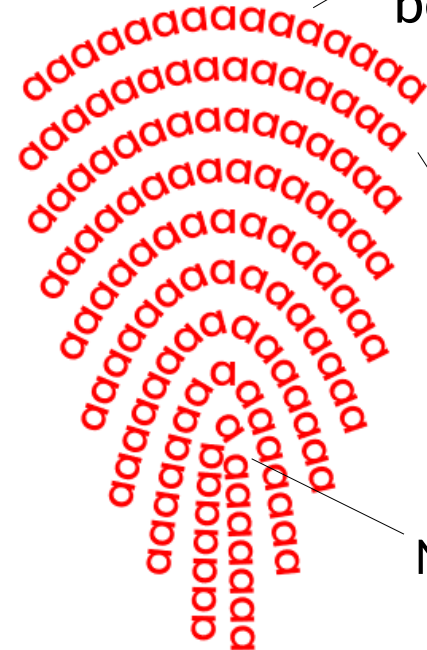
Connect curve points linearly



Characters may overlap
it fit the middle of the characters into the curve

Impress

Calculate curve between points



Less precise alignment


No character overlap

PowerPoint



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Thank you!

By Attila Szűcs



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