Ignore Shorten Stretch Lua-widow-control Lua-widow-control can remove most Lua-widow-control can remove most Lua-widow-control can remove most Lua-widow-control can remove most widows and orphans from a document, widows and orphans from a document. widows and orphans from a document, widows and orphans from a document, without stretching any glue or shortening any pages. any pages. any pages. any pages. It does so by automatically lengthen-It does so by automatically lengthen-It does so by automatically lengthen-It does so by automatically lengthening a paragraph on a page where a widow or ing a paragraph on a page where a widow or ing a paragraph on a page where a widow ing a paragraph on a page where a widow or orphan would otherwise occur. While TFX orphan would otherwise occur. While TFX or orphan would otherwise occur. While orphan would otherwise occur. While TEX T_FX breaks paragraphs into their natural breaks paragraphs into their natural length, breaks paragraphs into their natural length, breaks paragraphs into their natural length. lua-widow-control is breaking the paragraph lua-widow-control is breaking the paragraph length, lua-widow-control is breaking the lua-widow-control is breaking the paragraph 1 line longer than its natural length. TFX's 1 line longer than its natural length. TEX's paragraph 1 line longer than its natural 1 line longer than its natural length. TFX's paragraph is output to the page, but luaparagraph is output to the page, but lualength. T_EX's paragraph is output to the paragraph is output to the page, but luawidow-control's paragraph is just stored for widow-control's paragraph is just stored for page, but lua-widow-control's paragraph is widow-control's paragraph is just stored for later. When a widow or orphan occurs, lualater. When a widow or orphan occurs, luajust stored for later. When a widow or later. When a widow or orphan occurs, luawidow-control can take over. It selects the widow-control can take over. It selects the orphan occurs, lua-widow-control can take widow-control can take over. It selects the previously-saved paragraph with the least previously-saved paragraph with the least over. It selects the previously-saved parapreviously-saved paragraph with the least badness; then, it replaces TEX's paragraph badness; then, it replaces TeX's paragraph graph with the least badness; then, it rebadness; then, it replaces TEX's paragraph with its saved paragraph. This increases with its saved paragraph. This increases places T_FX's paragraph with its saved parawith its saved paragraph. This increases the text block height of the page by 1 line. the text block height of the page by 1 line. graph. This increases the text block height the text block height of the page by 1 line. Now, the last line of the current page Now, the last line of the current page of the page by 1 line. Now, the last line of the current page can be pushed to the top of the next page. can be pushed to the top of the next page. Now, the last line of the current page This removes the widow or the orphan withcan be pushed to the top of the next page. can be pushed to the top of the next page. out creating any additional work. This removes the widow or the orphan with-This removes the widow or the orphan with-This removes the widow or the orphan without creating any additional work. out creating any additional work. out creating any additional work. \usepackage{lua-widow-control} \parskip=0pt \parskip=0pt \parskip=0pt plus 1fill \clubpenalty=10000 \clubpenalty=0 \clubpenalty=10000 \widowpenalty=0 \widowpenalty=10000 \widowpenalty=10000

Table 1 A visual comparison of various automated widow handling techniques.