Stacking with Combining Diacritics

Latin GP Member: Bill Jouris

We have seen that, with precomposed code points, there is no stacking problem. However, when we have not had a precomposed code points available, and have had to use combining diacritics, the situation changes. In particular, when using the Courier New font (which is one of our three standard fonts for analysis), there is sometimes a problem.

In each case below, the letter is followed by another letter (or two, in the case of two combining marks. (In each case shown, the letters were simply copied, then the font changed. In the problem cases, the stacked letter is shown in red and bolded to make the shift of the diacritic easier to see. In the other cases, the stacked letter is in green.)

We have three types of outcomes.

1. In some cases, the combining mark is right where it should be.
2. In some cases, the combining mark is to the right, but the following letter is an additional space to the right. Which may be irritating, but is not problematic.
3. But in some cases (indicated by an ←) the combining mark is over or under the *following* letter. Thus producing something very different from what was intended.

Ariel	Courier New	
a̱a	a̱a	Latin Small Letter A + Combining Macron Below
e̱e	e̱e	Latin Small Letter E + Combining Macron Below
g̃g	gg̃ ←	Latin Small Letter G + Combining Tilde
i̱i	i̱i	Latin Small Letter I + Combining Macron Below
m̧m	m̧m	Latin Small Letter M + Combining Cedilla
n̈n	n̈n	Latin Small Letter N + Combining Diaresis
o̧o	o̧o	Latin Small Letter O + Combining Cedilla
o̱o	o̱o	Latin Small Letter O + Combining Macron Below
r̃r	rr̃ ←	Latin Small Letter R + Combining Tilde
ɔ̈o	ɔ̈o	Latin Small Letter Open O + Combining Diaresis
ɔ̱o	ɔo̱ ←	Latin Small Letter Open O + Combining Macron Below

ɛ̈e	ɛ¨e	Latin Small Letter Open E + Combining Diaresis
ɛe	ɛe̱ ←	Latin Small Letter Open E + Combining Macron Below
ɛ̈ee	ɛ¨e̱e ←	Latin Small Letter Open E + Combining Diaresis + Combining Macron Below
ɨ̃i	ɨĩ ←	Latin Small Letter I with Stroke + Combining Tilde
ʉ̃u	ʉũ ←	Latin Small Letter U with Bar + Combining Tilde
ẹ̀e	ẹè ←	Latin Small Letter E with Dot Below + Combining Grave Accent
ẹ́e	ẹé ←	Latin Small Letter E with Dot Below + Combining Acute Accent
ọ̀o	ọò ←	Latin Small Letter O with Dot Below + Combining Grave Accent
ọ́o	ọó ←	Latin Small Letter O with Dot Below + Combining Acute Accent
ộo	ộo	Latin Small Letter O with Circumflex + Combining Dot Below
ộo	ộo	Latin Small Letter O with Dot Below + Combining Circumflex
ợo	ợo	Latin Small Letter O with Horn + Combining Dot Below
ợo	ọʼo	Latin Small Letter O with Dot Below + Combining Horn

The ideal solution, of course, would be for the Unicode folks to create new pre-composed code points for these problem cases. But I suspect there is little chance of them doing so before our report is due. So, we will have to figure out an alternate approach to recommend.