Here's an equation that uses a mix of manual and automatic spacing.

$$x = 2\pi \int \sin(\omega t) dt$$

In old *groff*, we'd have to tune the **thin_space** and **thick_space** parameters, which would also influence automatic spacing. The result would look like this (using exaggerated parameter values for effect).

$$x \quad = \quad 2\pi \quad \int \quad \sin(\omega t) dt$$

But now, in *groff* 1.24 (?), we can tune the widths of the half and full spaces, which are explicitly specified by the user, separately.

$$x \quad = \quad 2\pi \quad \int \sin(\omega t) dt$$