2-designs Admitting Tactical Decompositions but no Group Actions

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How strong is in fact the assumption that an incidence matrix of a (v, k, λ) design admits a tactical decomposition with prescribed point and block set partition lengths? If a design is acted upon an automorphism group, then the point and block orbits form a tactical decomposition, but what happens if we start constructing a design with given tactical decomposition coefficients and forget in the next step of construction the group action? The smallest interesting case here is the one when all partition lengths equal to 1 or 3, for which we have developed an algorithm, which gives us a lot of block designs with trivial automorphism group.

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