Parallel Typesetting

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Abstract

We present the general mechanism by which logical content, arranged in multiple interacting containers, can be typeset into a set of visual substrates. The overall algorithm is iterative, with the successive iterations refining a multidimensional context that parameterises the behavior of the algorithm.

Each iteration consists of three parts. First, each visual substrate is informed which parts of which logical containers are to be placed thereon. Second, in parallel, the content placed in the substrates is typeset. Third, the resulting layout in each substrate is assessed for goodness, thereby resulting in the refinement to the overall context.

In the talk, we will present the theory and the practice behind this algorithm.