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## Abstract

The Zeckendorf representation, using sums of Fibonacci numbers, is widely known. Fraenkel generalized to recurrence sequences $u_n = a_1 u_{n-1} + \cdots + a_h u_{n-h}$ provided $a_1 \geq a_2 \geq \cdots \geq a_h > 0$. We remove this restriction, but do assume $a_i \geq 0$, and show that a unique representation of every positive integer is possible with digit strings composed of certain blocks which are lexicographically less than $a_1 a_2 \cdots a_h$.