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A non-increasing sequence $d = (d_1, d_2, \dots, d_n)$ is graphic if there is a simple graph G with degree sequence d . In this paper, it is proved that for a positive integer k , a graphic sequence d has a simple realization G which has k -edge-disjoint spanning trees if and only if either both $n = 1$ and $d_1 = 1$, or $n \geq 2$ and both $d_n \geq k$ and $\sum_{i=1}^n d_i \geq 2k(n-1)$. (Received August 20, 2010)