The authors investigate the impact of term frequencies, term distributions, and indexing exhaustivity on the representation of document spaces in a visual, vector-based retrieval environment. Using actual and simulated document sets, the authors compare document space densities resulting from combinations of indexing characteristics and inclusion or exclusion of index terms of a given frequency. Singly occurring terms are demonstrated to contribute significantly to defining the document space density, which has implications for the retrieval of documents. Indexing exhaustivity also plays an important role in shaping the document space, with higher exhaustivities resulting in the lowest document space densities. The implications for automatic indexing in IR systems are discussed.