Fix a positive integer M. The univoque set  $\mathscr{U}$  of bases  $q \in (1, M + 1)$ in which the number 1 has a unique expansion over the alphabet  $\{0, 1, \ldots, M\}$ plays a central role in the theory of non-integer base expansions. It has Lebesgue measure zero but Hausdorff dimension one. However, the dimension of  $\mathscr{U} \cap I$ varies greatly with the choice of the subinterval I. One way to capture this variation is through the function

$$f(q) := \lim_{\delta \to 0} \dim_H \left( \mathscr{U} \cap (q - \delta, q + \delta) \right), \qquad q \in (1, M + 1).$$

In this talk I will give a precise characterization of the function f(q) and its one-sided analogs, and show how at least for certain values of q they can be explicitly calculated. A consequence of the main result is that f is continuous at those (and only those) points where it vanishes. Using the function f we can express the Hausdorff dimension of  $\mathscr{U} \cap I$  for any subinterval I. Finally, the main result is applied to solve an open problem about strongly univoque sets.

This is joint work with Derong Kong.