Dimensions of sets defined by expanding reals in different integer bases

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Real numbers can be represented as infinite sequences of symbols by expanding them in integer bases. There are methods of finding the Hausdorff dimension of sets defined by specifying for example how often certain symbols should occur. But if one intersects sets like this after expansion in different bases, most standard methods do not apply. I will give examples of cases where we can still find the Hausdorff dimension.