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It is well known that the group of divisibility contains copious information on the factorization structure of an integral domain. In this talk, we define a (directed) graph that shows what the group of divisibility of an integral domain "looks like". This will allow us to characterize some common factorization types of domains with a visual flavor. We will also show the graph of an integral domain is weakly connected if and only if the domain is "nearly" atomic. Additionally, the number of (weakly) connected components is a measure of how far the domain is from being "nearly" atomic. (Received August 28, 2012)