UML may be used to describe both the structure and behavior of object-oriented systems using a combination of notations. For the modeling of the dynamic behavior, a number of different models are offered such as interaction, state and activity diagrams. Although compositional techniques for modeling computational processes demand means of composing elements both in nonatomic or atomic ways, UML seems to lack compositional constructs for defining atomic composites. We discuss proper extensions for diagrams that are able to cope with the concept of atomic composition as the basic element for describing transactions (in our settings the term "transaction" denotes a certain operation of a system that might be atomically composed by many, possibly concurrent, operations). Atomic compositions are then formally defined through a special morphism between automata in a domain called Nonsequential Automata (a non interleaving semantic domain with its foundations on category theory, for reactive, communicating and concurrent systems).