Abstract:
ECATNets are a specification framework based on an ad-hoc combination of Petri nets and abstract data types. The concept of rewriting logic is used to give them a "clean" semantics. Transforming this logic into a rewriting system may be used for prototyping the specified systems. A major drawback of our framework is that the achieved prototypes suffer from a lack of efficiency during their execution. To palliate this lack, we introduced in a previous work the concept of hidden sorted ECATNets, a combination of net/object model allowing to "hide" internal states, and then to get more rapid prototypes. The objective of this paper is to show the practical applicability of this concept on a "benchmark" from the area of communication protocols, the Ethernet protocol such as seen by a sending station.