

F-ACTOR: A MULTIAGENT GAMING ENVIRONMENT FOR CONTROLLING VIRTUAL FLOW NETWORKS

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Abstract

A gaming environment that enables agent-based local control of a configurable virtual flow network is developed. The gaming software what we call F-Actor provides a graph-based discrete virtual control environment on which user-developed controller agents reside and act according to their assigned design goals. Runtime performances of user-developed controller agent codes are made observable through a graphical user interface. The proposed game can be played by different developers having different level of control and programming knowledge. By playing with F-Actor, engineers (or students) can make practices on a virtual flow environment and try alternative intelligent control algorithms before their potential implementations on field.