Klaus Dorer

Hochschule Offenburg
Offenburg
Germany

# Extended Behavior Networks and their Application in RoboCup

## Abstract

Decision making in Extended Behavior Networks (EBN) is based on a mechanism called activation spreading. Unlike its predecessors, activation spreading in EBNs is based on decision theory trying to maximize expected utility. They also come with a couple of extension like parallel execution of behaviors or parameterizing behaviors with the decidedness of the agent.

EBNs have been applied in RoboCup to control the behavior and team play of simulated soccer playing agents. They also have been applied to reproduce human decision making in cases where humans divert from decision theoretic behavior.