This thesis presents a novel approach to introducing programmers into parallel and distributed computing. The main objective of this work is to develop an online coding environment which contains tutorials in form of simple parallel programming tasks. The online application simulates and visualizes multiple agents which cooperate on a task in virtual environment. These agents are programmed in a custom procedural language similar to JavaScript. A significant part of this thesis focuses on the design of this language. The client-side compiler is built using tools similar to Bison and Flex. The parallel simulator supports different scheduling algorithms including lock-step mode simulating computation on a GPU. An important aspect of the platform is extensibility; therefore, the tutorials and the packages for the programming language can be added as plug-ins. The final part of this thesis is dedicated to the implementation of sample packages and tutorials which demonstrate that the key goals of this thesis have been accomplished.