

DEECo is a novel component model for designing software-intensive cyber-physical systems. As a practical realization of this model there was developed the JDEECo implementation, written in Java. The usage of this framework was shown in a number of different scenarios. However, at the moment there are only limited ways to systematically create, simulate, and visualize new scenarios written with this model. This thesis presents a virtual playground that allows to create scenarios featuring autonomic robots programmed in DEECo. The playground offers a number of options in creation of scenarios, including programming robots and their interactions, customizing and extending the physical environment, and adding interactive objects. These scenarios can also be visualized with the developed application. The parameters of visualization can be customized for needs of a specific scenario. The functionality of the application is demonstrated on several example scenarios.