The Next Generation of Wirelesss Cyber-Physical Simulator

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In order to make Wireless Cyber-Physical Simulator (WCPS) more accessible to people in the research community, and also to improve its accuracy of representing real industrial models, we worked on the dockerization of WCPS, and implemented the multi-rate feature for WCPS, enabling the simulator to have different network rate and plant rate when running a simulation. We created a new version of WCPS by dockerizing run-time libraries and the Tossim server and also embedding the multi-rate feature in the old version. Our report includes the introduction and dockerization of WCPS, and shows the results of using the new generation of WCPS on a specific linear system.