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Pulsar Timing Simulator for the testing of Gravitational Wave Analysis Pipelines JING LUO, FREDRICK JENET, University of Texas at Brownsville — We are developing a pulsar pulse time-of-arrival simulator based on SPICE, the solar system ephemeris software package developed at NASA's Jet Propulsion Laboratory. Currently, the analysis and simulation of pulsar timing data has been predominantly carried out using either the TEMPO or TEMPO2 software packages. This completely TEMPO-independent simulation will enable full end-to-end testing of these packages as well as the data analysis pipe-lines based on these packages. This includes pipe-lines that will be used to detect and study gravitational waves. This poster describes the current design of the new package, its capabilities and limitations, and well as the results of preliminary tests of the TEMPO2 package.

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