# StarSim RCP

PC-based software for rapid control prototyping

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StarSim RCP is a computer program developed by ModelingTech, which is designed for rapid control prototyping systems and can be used as a prototype controller in conjunction with relevant hardware. It is a configuration-based software, where users only need to configure and map it to download control algorithm models built in Simulink or LabVIEW to the hardware processor for real-time execution. The platform helps users quickly validate the effectiveness of algorithm models.

Detailed Highlights
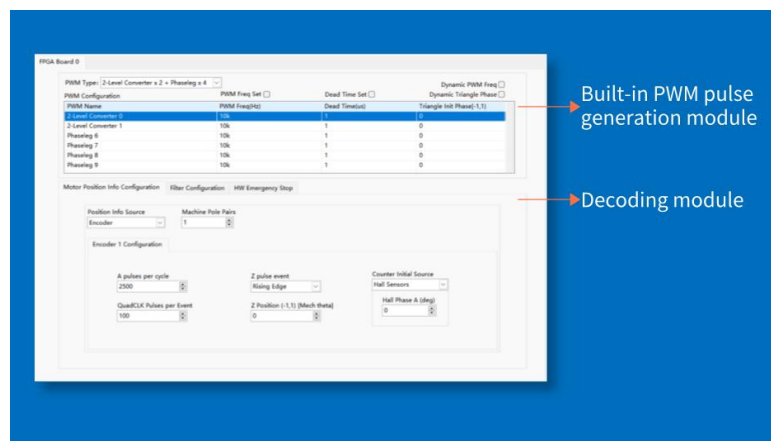
Rich addon functions

Users can independently select the mode of PWM wave generation, the software supports dynamic adjustment of carrier frequency and phase, provides the decoding module of photoelectric encoder and rotary signal, as well as equipped with digital filtering and emergency stop by hardware.

IO Mapping Result

Visualized one-click configuration for I/O

The mapping between the model IO and the RCP controller IO can be done with a few mouse clicks, and the input/output relationship can be seen clearly., which saves users' time on interface configuration.

Editable monitoring interface

Users can freely drag and drop common controls, indicators, charts and pictures to customize the run monitoring screen, and can adjust parameters online. Any interfaces set by the algorithmic model can be displayed on the oscilloscope control.

Application Scenarios

RCP Power Device Control

The distinctive Power Device Control System launched by Modelingtech combines virtual and physical elements, which enables better cultivation of students' practical and hands-on abilities.

Microgrid Research

Running microgrid EMS algorithms and the underlying inverter control of photovoltaic, wind energy storage, etc., to quickly realize the verification and testing of control strategies.

Innovative Teaching Experiments

As a part of the MT simulation experiment platform, it helps students to complete experiments of basic power electronic control, grid-connected control of renewable energy inverters, motor control and so on.

Renewable Energy Inverter Control

Capable of rapid verification and testing of renewable energy inverter control algorithms and systems, helping users save time and reduce costs in the process of product development and release.