

Purchase an Algozen Power-Bundle and save even more

Digital Control Module PSIM

The digital control module is provided to analyze control systems in Z-domain. It can be used to simulate the performance of digital control loops, study digital filters, and evaluate various effects in digital control, such as truncation errors, sampling/hold delay, and computational delay. This module is ideally suited to simulate digital control schemes for microprocessors or DSP implementation and to perform digital signal processing. You can, for example, study the effect of A/D quantization errors, and determine whether a particular sampling rate will be able to achieve required performance specifications.

The Digital Control Module contains the following elements:

- Zero-order hold
- Unit Delay
- z-domain transfer function block
- General digital filter (including IR digital filter)
- F/F digital filter
- Discrete integrator
- Resettable discrete integrator
- Discrete differentiator
- Quantization block
- Circular buffer
- Convolution block
- Vector array
- Stack

Motor Drive Module PSIM

- DC machine
- 3-phase squirrel-cage induction machine (with and without saturation)
- 3-phase wound-rotor induction machine (with and without saturation)
- Permanent-magnet brushless DC machine (BOCM) with trapezoidal back emf
- Permanent-magnet synchronous machine (PMSM) with sinusoidal back emf
- Conventional synchronous machine with external excitation
- Switched reluctance machine (6 stator teeth/4 rotor teeth)
- Gear box
- General-type mechanical load
- Constant-torque mechanical load
- Constant-power mechanical load
- Constant-speed mechanical load
- Torque sensor
- Speed sensor

SimCoupler Module PSIM

The SimCoupler Module provides interface between PSIM and Matlab/Simulink for co-simulation, so that part of a system can be implemented and simulated in PSIM and the rest in Matlab/Simulink.

While Matlab/Simulink has strong capability in control system simulation, it is awkward and cumbersome in simulating electric circuits, especially power electronic circuits. The SimCoupler Module enables Matlab/Simulink users to implement and simulate power circuits in their original circuit form, thus greatly shortening the time to set up and simulate a system which includes electric circuits and motor drives.

At the same time, the SimCoupler Module allows power electronics researchers and engineers to simulate control in the Matlab/Simulink environment, thus further enhancing PSIM's control simulation capability by providing access to numerous Simulink toolboxes.

With the SimCoupler Module, one can make full use of PSIM's capability in power simulation and Matlab/Simulink's capability in control simulation in a complementary way.

Renewable Energy Module PSIM

The Renewable Energy Module provides models of popular solar cells, wind turbine and associated renewable energy models.

Extreme CADSTAR

- XR5000HS Router
- Signal Integrity Verify
- Unlimited Layer Auto-router
- XR2000HS Router
- Rules by Area
- Board Modeler Lite (3D)
- EMC Adviser
- B Spice Mixed Mode Simulation
- Design Migration
- Schematic Design
- Library Editor
- Library Datasheet Publisher
- Variant Manager
- PCB Design Editor (Unlimited)
- Place & Route Editor
- 6 Layer Auto-router
- 1 year software upgrades, Technical support and access to the online libraries
- Free Gerber Editor (Excelcam)
- Free Design Viewer
- Network or Node-locked license

PSIM
Key Features of PSIM:
Easy to use
Fast Simulation
Flexible control representation
Frequency response analysis (AC sweep)

Custom C/C++ Code
Built-in Power and Control Blocks

Thermal Module PSIM

The Thermal Module provides a quick way of calculating conduction and switching losses of semiconductor devices (diodes, IGBT and MOSFET).

Loss calculation is an important aspect in power converter design. With the Thermal Module, users can add the datasheet information of device manufacturers into a database and use these devices in the simulation for loss calculation. With the loss information, one can build a thermal equivalent circuit and calculate temperature raise.

One major advantage of the Thermal Module is that it is very easy to use. New devices can be easily added into the database and the Database Manager provides convenient ways to navigate through the database and search or sort devices. Also, the loss calculation is done in such a way that it does not compromise the fast simulation speed.

The Thermal Module is ideal for quick loss estimation and for comparing different operating conditions or comparing devices of different manufacturers.

Algozen Power-Extreme Bundle Limited Time Bundle offer \$22,310.00

This package provides extreme functionality offering the capability of all the other Algozen bundles, and more. PSIM with all of its modules provides the capability to simulate almost any system involving power electronics. Added to this bundle is CADSTAR's signal integrity tools which offer extreme management of high speed circuitry right down to stripline design levels. This package will enable a design team to manage just about any design that can be encountered. With MATLAB/Simulink co-simulation support, this bundle provides truly extreme value.

Place your order today: us.sales@algozen.com 716-783-8483
canada.sales@algozen.com 905-399-3074
www.algozen.com

Prices are in US Dollars. Offer valid only for residents of New York State USA and Ontario, Canada

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Offer expires March 31st, 2010



ATT'N:

Engineering Mgr of Printed Circuit Board Design
Engineering Mgr of CAD/CAE Software Tools
Electrical Engineering Simulation Mgr



Algozen Power-Flex Bundles

Buy any Algozen-Power Bundle and add another PSIM module at 10% off that module's regular price. Offer expires March 31, 2010

NOTE: All bundles for PSIM Professional are Stand Alone versions. PSIM Network version is priced separately. All CADSTAR Bundles are available as Stand Alone or Network version at no additional cost.