

## Next-generation ultra-high-performance real-time simulation and control platform

Procyon is an ultra-high-performance real-time simulation and control platform, customizable for a diverse range of applications. By integrating one or more quad-core CPU boards with necessary function boards and running simulation and control models in real time, the Procyon makes a very powerful model-based development platform that accommodates a variety of customer needs such as rapid control prototyping and hardware-in-the-loop testing, etc.

Procyon uses A&D's VirtualDSPConsole as a visual front end for system monitoring

and parameter setting. MATLAB/Simulink is used for modeling and control development. Blocksets for the function boards are provided and can be easily integrated in the solution.

A&D HiL solutions based on Procyon perform the modeling, control, I/O and communication tasks all from the same platform. The tightly coupled virtual and physical systems ensure high speed, low latency and consequently high performance.



*The Procyon Simulation and Control Platform*

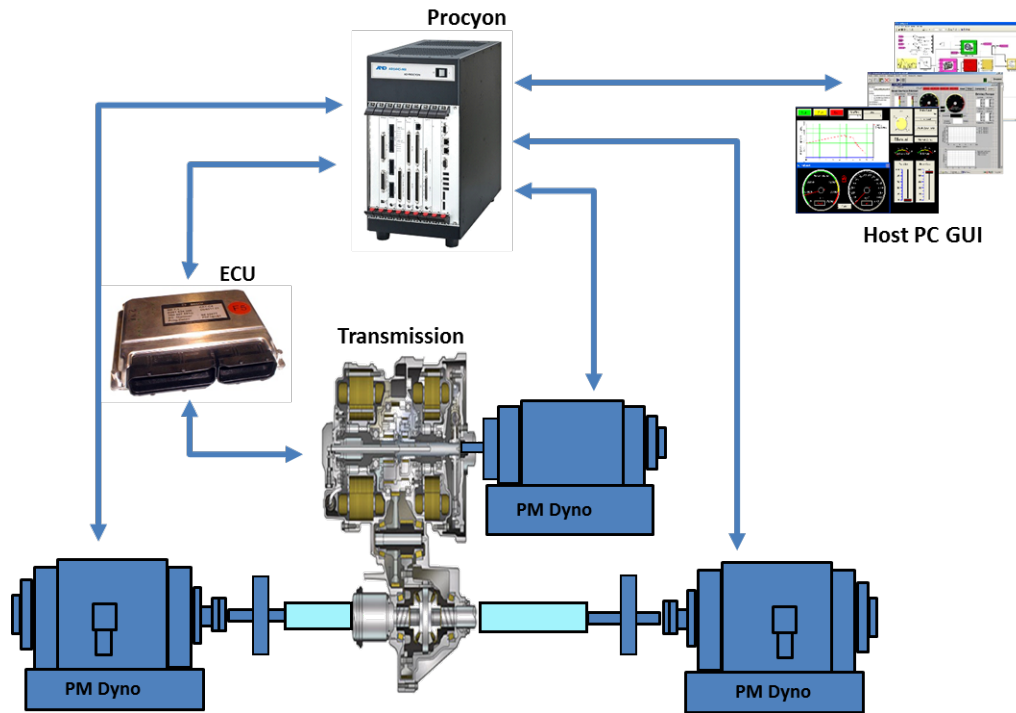
## Highlights

- Multi-core/multi-CPU system support
- Direct connection of the I/O interface to the CPU provides faster closed-loop control
- Real-time application development environment with MATLAB/Simulink and A&D VirtualDSPConsole
- Open system specification enables third-party I/O board development
- Flexible system configuration

## Typical Applications

- Distributed processing and control
- Hardware-in-the-loop testing
- Real-time data acquisition, processing and analysis
- Vehicle dynamics simulation
- Control algorithm development
- Advanced research and development

## Example Application: Transmission-in-the-Loop



## System Boards

- System board with Intel Xeon
- 3.5 GHz Core CPU
- Engine HiL board
- 32ch Analog input board
- 16ch Analog input board, 250kHz (simultaneous sampling)
- 32ch Analog output board
- Digital I/O board (Flex channel)
- Multi-function I/O board (A/D 12ch, D/A 8ch, DI 16ch, DO 16ch)
- Servo-controller board (4ch input/1ch output)
- Box-to-box Synchronization board
- PWM I/O board
- Box-to-box Communication board
- Network board (CAN, Serial, K-Line, LIN)

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