



What is a Raptor Control Module?

Nearly all complex electro-mechanical systems, especially those in automotive applications, (such as internal combustion engines, hydraulic systems, and hybrid electric powertrains) require complex control algorithms. Hand-coding this complicated control logic in traditional programming languages like C, C++, or Java can amount to hundreds of thousands of lines of code. Writing and debugging code in this manner can be time consuming, tedious, and labor intensive.

New Eagle's line of Raptor-compatible controllers and complimentary Raptor-Dev software offer an alternative approach to the traditional programming languages. These controllers allow developers to leverage the graphical programming environment of MATLAB Simulink to quickly and easily create, edit, and debug application software. But what exactly is Raptor-Dev software and how does it allow developers to create software in Simulink for control modules?



Raptor-Dev is a library of customizable Simulink blocks that allows developers to quickly create custom software for Raptor-compatible controllers. Developers work directly in the Simulink environment with Raptor-Dev blocks as well as native Simulink blocks and features. The Raptor-Dev library blocks facilitate interaction between Simulink and all the input, outputs, and communication channels of the control module hardware. For example, the Raptor-Dev library includes blocks to read analog inputs or actuate low side drive outputs. The Raptor-Dev library also contains other useful block-sets for many applications, such as OBD fault management and data logging. Even J1939 or Modbus Raptor library blocks are available. Common to all the Raptor library blocks is that they are easy and intuitive to use. The Raptor-Dev libraries vastly reduce software complexity, speed-up development, and eliminate the need to understand the low-level logic necessary to manage controller hardware.

Once an application is ready for programming, code can be directly compiled from Simulink into an application file, which can then be programmed onto the Raptor-compatible module through the windows-based Raptor-Cal software and a USB-to-CAN hardware interface. Raptor-Cal also allows users to calibrate application parameters in real-time.

For more details, please contact our Sales Team at sales@neweagle.net

