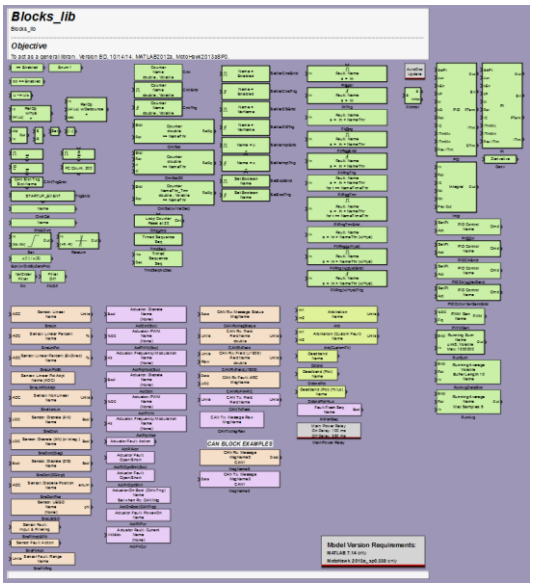
Overview:



The New Eagle MotoHawk Foundation Control Block Set is a set of controls blocks for development in the MotoHawk-Simulink environment. It functions as a general library, with blocks designed for robust and efficient signal processing and characterization, control loop development, and fault management. Many of the blocks are compatible with general embedded development, while some are created specifically for the MotoHawk embedded environment.

The basic terms and conditions of this software follow:

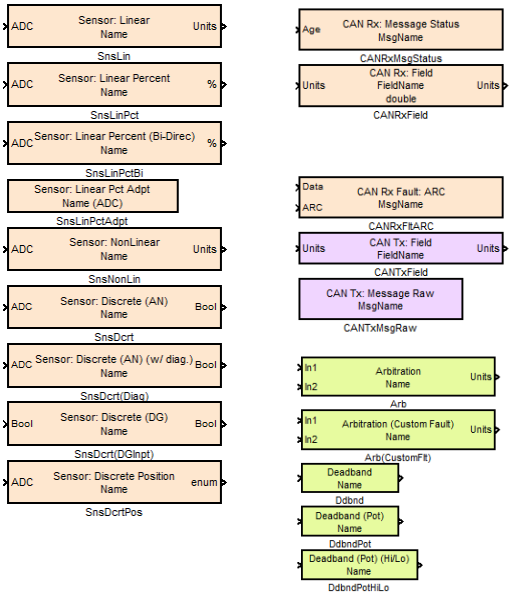
- These models are intended for prototyping and development use only and must be validated against the purchaser's specific production application.
- The license grants the purchaser the right to use these models within their company only (one site) for controls development.
- These models cannot be resold in any form regardless of modifications and content added by purchaser.
- These models cannot be posted on any publicly accessible forum.
- New Eagle does not warrant these models in any way. Models are sold "as is".
- The embedded code generated from these models or any modified form of the models can be sold free of royalty to New Eagle.

Upon procurement of this library, the recipient agrees to adhere to the above terms and conditions.

Signal Processing and Characterization

Blocks include:

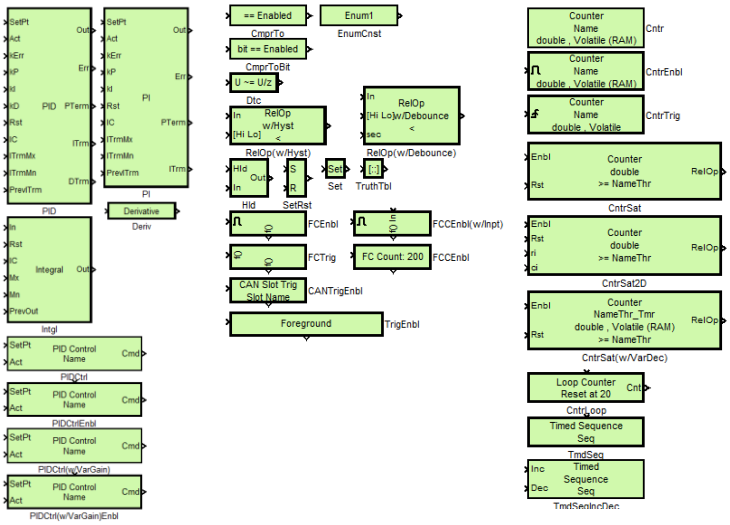
- Digital low-pass filter
- Custom equations with divide-by-zero protection
- Rate limiter
- Linear and nonlinear sensor characterization
- Linear sensor to percent adaptation
- Discrete input characterization with debounce
- PWM and frequency modulated actuator control
- Deadband and arbitration logic
- CAN transmit and receive examples for CAN signal management



General Controls Development

Blocks include:

- PI and PID control
- PID with variable gain
- Derivatives
- Integrals
- Software PWM generator
- Running summer and averaging
- Counters and timers
- Custom Truth Table
- Comparators with hysteresis
- Function call creators



Fault Management

Blocks include:

- Fault triggering
- Out of range fault detection
- Out of range fault detection with timer functionality
- CAN interfaces with message timeout and ARC fault detection
- Fault status management