SOFTWARE IN DRONE CONTROL

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ABSTRACT

High performance multi-use drones require complex control capability. Distributing the communications, control and navigation functions among different microprocessor systems connected in a network improves performance and reliability.

Assembly language provides the means of optimizing time critical functions of communications and I/O control, which high level languages, such as PASCAL, ease development of mission management requirements.

The use of real-time operating systems (RTOS) permits co-processing of a variety of functions in overall drone operation management. The RTOS is a software “bus” providing communications network for modules. Functions and modules are assigned priorities, enabled or suspended as needed to perform mission operational requirements via the RTOS.