A SOFTWARE MODULE FOR REAL-TIME ETHERNET BASED COMMUNICATION

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Proper communication between the control elements is essential for any form of a control system. Ethernet based communication adds a greater potential to such control systems, especially control systems dealing with motion control. The central advantage related to this method stems from the fact that the system can be administered remotely from anywhere.

The objective of this paper is to explore the possibilities of developing a software module to handle Ethernet based communication in a real-time environment. In using the Ethernet as the medium of communication in a motion control system for example, the communication between the motors and sensors have to be coordinated in real-time. This is required as the control system has to adapt to changing dynamics before a new set of dynamics come into effect. This paper describes an effort to develop a software module which shares data among several TCP sockets in order to coordinate such systems.