

A Framework for Fragmenting/Reconstituting Data Frame in Controller Area Network (CAN)

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Abstract—Controller Area Network (CAN) is a multi-master, message-based serial network communication protocol. Since the "Data field" of the CAN Frame supports the size of 8 bytes, the CAN transmitting node cannot transfer data beyond the size of 8 bytes. The purpose of this paper is to provide a framework for the transmission of long data beyond the size of 8 bytes in CAN network. The framework consists of transmitter node and receiver node. The transmitter node splits the long data into several small messages. And the receiver node reconstitutes the split messages into the original data. This paper proposes the detailed process of two nodes using a new defined CAN Frame format proposed in the previous paper. In the previous work, there isn't the process for fragmenting/reconstituting CAN data frame.

Keyword— Controller Area Network (CAN), Data Fragmentation, Data Synthesis



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