SDO and PDO

Sebastian Scholz
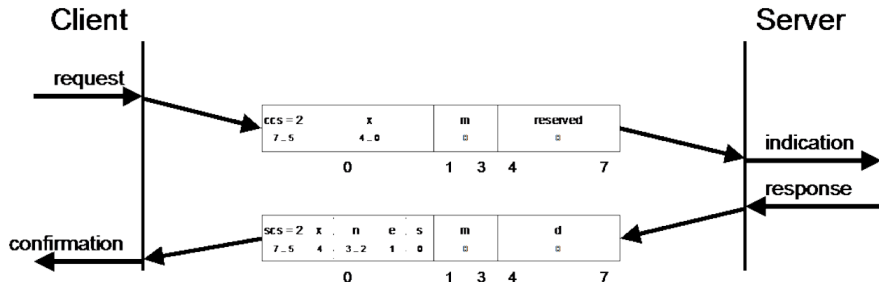
Bergische Universität Wuppertal

20th November 2018

Service Data Objects (SDO)
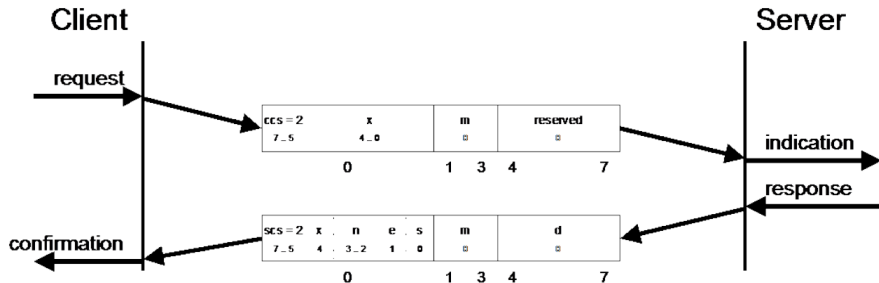Advantages

- Relative simple logic, easy to implement
- 100% compatible with CANopen standard
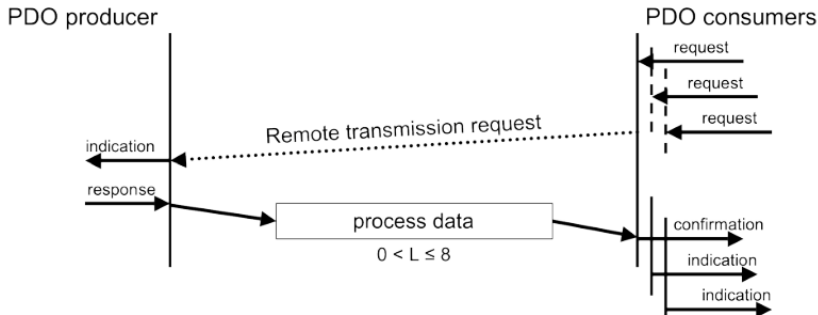
- Only 4 bytes of data usable
- 2 CAN messages per transmission
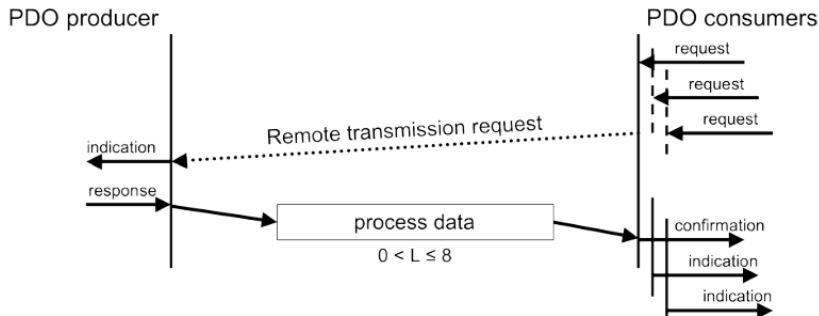- Constant data transmission is not the intended use

Process Data Objects (PDO)
Advantages

- Up to 8 bytes of data per message
- Only one trigger message for one node (RTR) or for all nodes (SYNC)
- Much less overhead
- Synchronous data transmission is the intended use

PDO producer — PDO consumers

request

request

request

Remote transmission request

indication

response

process data

$0 < L \leq 8$

confirmation

indication

indication

- Not 100% compatible with CANopen because trigger message triggers more than one response message
- More complex logic
- Unconfirmed: No specific error messages are defined

BERGISCHE
UNIVERSITÄT
WUPPERTAL