CAN_API-Script

The CAN_API-Script contains some commands for the communication between EPICS and microcontroller basiet on the CAN_API .

1-Example of commands via the CAN interface of the microcontroller

The first part of the commands for controlling VME Crate using EPICS via CAN bus.
Remark:this command is only valid when the address of the VME crate 4. If you change the address on the VME must also seek the corresponding address.
C= command

1-1 Read Status from Crate (IDstat)
C="SEND 4 0 1 8"
Example of response: "RECV 0 4 8 ff 80 0 0 0 0 0 0"

1-2 Write control Command to Crate(IDcrtl)
C="SEND 84 0 1 8"

1-3 Read voltage/current channel 0+4(IDvc04)
C="SEND 104 0 1 8"

1-4 Read voltage/current channel 1+5(IDvc15)
C="SEND 184 0 1 8"

1-5 Read voltage/current channel 2+6(IDvc26)
C="SEND 204 0 1 8"

1-6 Read voltage/current channel 3+7(IDvc37)
C="SEND 284 0 1 8"

1-7 Read fan speed(IDfan)
C="SEND 304 0 1 8"

1-8 Read temperatures(IDtemp)
C="SEND 384 0 1 8"

1-9 Crate sends voltage configuration data (IDucfgC)
C="SEND 484 0 1 8"

1-10 Host requests/programs voltage configuration data(IDufcgH)
C="SEND 504 0 1 8"

1-11 Crate sends voltage configuration data(IDcfgC)
C= "SEND 584 0 1 8"

1-12 Host requests/programs configuration data (IDcfgH)
C="SEND 604 0 1 8"

1-13 Crate of state(Crateoff)
C="SEND 84 0 0 1 1"

1-14 Crate on state (Crateon)
    C="SEND 84 0 0 1 3"

1-15 To subscribe and unsubscribe some messages example message with ID = 10(IDsubs10)
    C="SUBS 10 7FF"
1-16 To unsubscribe some messages example message with ID = 20(IDusub20)
    C="USUB 20 7FF"

2-Example of commands via the other interface of the microcontroller

The second part are the commands to control other device using EPICS via other interfaces of the microcontroller.

2-1 Readout of the sensor temperature
    C="TEMP 1"
TEMP = Temperatur
1 = Number of bus
Example of response:"RECV 0:286214E90000000A 018C 1:2852EFE8000000BE 019D
2:287245E900000009 018A 3:284E0BE9000000D2 018F 4:2863E4E800000014 0191
5:280769E9000000A3 01AB"

2-2 Read the contents of a register
    C="RERG Addr"
RERG = Read Register
Addr = The address of the register, which is read out.
Example of command: "RERG 28"
Example of response: "RECV 8"

2-3 Write a value in the register
    C="WRRG Addr Value"
WRRG = Write Register
Addr = Address of the register
Value = Value that is written in the register
Example of command: "WRRG 28 FF"
Example of response: "RECV the value ff has been written in adresse"

2-4 Read the input voltage of ADC-channel
    C="RADC channel"
RADC = Read Analog to Digital Converter
channel = Number of channel
Example of command: "RADC 1"
Example of response:"RECV 623 voltage of channel 1"