

# SCECAL Slow Control to DAQ communication protocol (FERMILAB) V8.2

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## Changes: Table 1, item 7

The whole communication is, because of different systems (big/little endian), doing in STRINGS.

Table 1 shows the available command structure. All other tables are describing the back coming values.

	command	prefix 1	prefix 2	comment	comment
1.)	run			not used	send UNIX sec back (up to now)
2.)	reset			not used	only a "#" is send back
3.)	temperature			get 8 temperature float values	
4.)	readout	mod	1 .. 22	get data for module 1 to 2	sending parameters for module 1 to 2

**Table 1**

### 1.) run

not defined up to now  
 send by DAQ: run#  
 receive: <UNIX seconds>#

*examples:*

send: run#  
 receive: 1147349593#

### 2.) reset

not defined up to now  
 send by DAQ: reset#  
 receive: #

*examples:*

send: "reset#"  
 receive: "#"

### 3.) temperature

ask for the actual 8 temperatures  
 send by DAQ: temperature#  
 receive: <timestamp in UNIX sec> <T1> ... <T8>#

*examples:*

send: "temperature#"  
 receive: "1147349593 1.111111 2.222222 3.333333 4.444444 ... 8.888888#"

### 4.) readout mod 1..32

the actual status of modules 1 to 32 shall send from SC to DAQ  
 send by DAQ: readout mod <1 to 32>#  
 receive: <timestamp> <module no> <data 3> ... <data 18>#

see *Table 2*

Data	Comment	unit
1	timestamp	UNIX sec
2	module No	1 .. 38
3	CMB temp lower	°C
4	CMB temp upper	°C
5	CMB V_calib_at_U041	V
6	CMB power 12V	V
7	CMB REF_1.235V	V
8	CMB VLD_upper_CMB	V
9	CMB VLB upper	V
10	CMB VLB upper	V
11	CMB VLD for LED	V
12	CMB 10V bias	V
13	CMB W calib at U051	V
14	CMB LED settings	0 .. 65535 (int)
15	CMB width	0 .. 255 (int)
16	CMB height	0 .. 255 (int)
17	HBAB HV Volt	V
18	HBAB HV Current	A

**Table 2**