Tested 9/19/23 MJ/S

```
SciDos>u4stalk 0 19200 0
    U4STALK: Program Version 1.1
    Version 8.7 UNRELEASED DEVELOPMENT NONAUTOMATED BUILD
3
    Using uart port 0 at 19200 baud
    Raising a total of 1 bit(s):
5
6
        ______
7
     Opening port 0:SBMB:J0
8
      19200 baud, N81, line buf: 0, no input data timeout(secs): disabled
9
      in queue size: 204800, out queue size: 2048
10
    sci uart drain input(0):
11
1.2
    sci uart drain input:Drained 0 chars
13
14
    bit shared open(): bit(0) is already open.
    Bit(0) use count is now 2.
15
    bit_shared_raise(): Raising bit(0).
16
    All the setup is done. Beginning emulation....
17
    To exit this program:
18
     Drop Carrier Detect for 3 seconds (i.e. unpower freewave)
19
      --or--Type Ctrl-C and hit NO keys for 1 secs.
20
    ______
21
                 99:99:99 695 50 700 4130
    99/99/99
                                                                    287
                                                                           541
22
                                              700
                                                                           540
                                       48
                                                     4130
                                                             460
                                                                    287
                               695
                  99:99:99
23
    99/99/99
24
    Ser FLBBCDSLC-8411
25
    Ver TripletD 4.07
26
27
    Ave 19
    Pkt 0
28
29
                                                                           539
                                                                    292
                                                             460
30
    99/99/99
                  99:99:99
                                695
                                       48
                                               700
                                                      4130
                                                                           539
                                       50
                                                                    289
                                               700
                                                      4130
                                                             460
                  99:99:99
                                695
    99/99/99
31
                                                      4130
                                                             460
                                                                    264
                                                                           538
                               695
                                       49
                                              700
    99/99/99
                 99:99:99
32
                                      39
                                                                    56
                                                                           539
                                              700
                                                     590
                                                             460
    99/99/99
                 99:99:99
                               695
33
                                                    544
                                                             460
                                                                    46
                                                                           539
                                              700
                                      41
    99/99/99
                 99:99:99
                               695
34
                                                                   47
                                                                           539
                                                    461
                                                             460
                                              700
                               695
                                      44
35
    99/99/99
                 99:99:99
                                                                   3502
                                                                           538
                                                             460
                                      3230
                                              700
                                                    3952
                               695
36
    99/99/99
                 99:99:99
                                                                           538
                                                    4130
                                                             460
                                                                   4130
                               695
                                      4130
                                              700
                 99:99:99
37
    99/99/99
                                                             460
                                                                   4130
                                                                           538
                                              700
                                                    4130
                 99:99:99
                                      4130
                                695
38
    99/99/99
                                                    4130
                                                             460
                                                                   4130
                                                                           538
                                      4130
                                              700
                 99:99:99
                                695
39
    99/99/99
                                                    4130
                                                             460
                                                                   4130
                                                                           538
                                       4130
                                               700
                                695
40
    99/99/99
                  99:99:99
                                                    4130
                                                             460
                                                                   4130
                                                                           538
                                       4130
                                               700
41
                 99:99:99
                                695
    99/99/99
                                                                   3582
                                               700
                                                     3784
                                                             460
                                                                           538
                                695
                                       3619
                 99:99:99
42
    99/99/99
                                       48
                                               700
                                                     432
                                                             460
                                                                   42
                                                                           538
                                695
                 99:99:99
43
    99/99/99
                                                                   40
                                                                           538
                                       51
                                               700
                                                     439
                                                             460
                                695
    99/99/99
                 99:99:99
44
                                                                   55
                                                                           538
                                                     492
                                                             460
                                       44
                                              700
                 99:99:99
                                695
45
    99/99/99
                                                                    113
                                                                           538
                                                      4130
                                                             460
                                695
                                       62
                                               700
    99/99/99
                 99:99:99
46
47
    Heard exit char, Leaving emulation_loop()
48
    sci_uart_close(0): Closing SBMB:J0
49
    Restoring bit[s] to initial state.
50
51
    Lowering bit: 0
52
    Bit(0) raise count is now 0.
    bit shared close(): bit(0) is still in use.
53
54
    Bit(0) use count is now 1.
55
    return 0; from main()
    _____
56
57
58
59
    SciDos>
60
61
62
63
    GliderLAB I -3 >loadmission sci_on.mi
64
```

load_mission(): Opening Mission file: SCI_ON.MI

Setting SENSOR c_science_on(enum) value 3.000000 Setting SENSOR c_science_all_on(secs) value 0.000000

```
68
      Setting SENSOR c science send all(bool) value 1.000000
      Setting SENSOR u_use_ctd_depth_for_flying(bool) value 0.000000
 69
 70
 71
     GliderLAB I -3 >538.79 40 Sent science:s:c flbbcd on(sec) 0-
 72
                Sent science:s:c science send all(bool) 1-
 73
 74
     538.86
                Sent science:s:m cycle number(nodim) 141-
                science wrote:sci flbbcd bb_ref(nodim) 700
 75
      541.64
                science wrote:sci flbbcd bb_sig(nodim) 4130
 76
      541.67
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
 77
     541.70
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
 78
     541.72
                science wrote:sci_flbbcd_cdom_sig(nodim) 127
 79
     541.75
                science wrote:sci_flbbcd_cdom_units(ppb) 7.352
 0.8
     541.78
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
 81
     541.80
                science wrote:sci_flbbcd_chlor_sig(nodim) 98
 82
     541.83
                science wrote:sci_flbbcd_chlor_units(ug/l) 0.7497
 83
     542.00
     542.02
                science wrote:sci flbbcd therm(nodim) 539
 84
                science wrote:sci_m_present_secs_into_mission(sec) 541.807495117188
      542.05
 85
     542.07
                science wrote:sci m present_time(timestamp) 1695151243.8075
 86
                science wrote:sci flbbcd bb_ref(nodim) 700
     542.74
 87
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
 88
     542,76
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
 89
      542.79
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
 90
     542.81
     542.84
                science wrote:sci_flbbcd_cdom_sig(nodim) 129
 91
                science wrote:sci_flbbcd_cdom_units(ppb) 7.5358
 92
     542.87
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
 93
     542,89
                science wrote:sci_flbbcd_chlor_sig(nodim) 97
 94
     542.92
      543.10 41 science wrote:sci flbbcd chlor units(ug/1) 0.7378
 95
96
                science wrote:sci flbbcd therm(nodim) 539
      543.13
                Sent science:s:m_cycle_number(nodim) 142-
 97
     543.15
                science wrote:sci_flbbcd_bb_ref(nodim) 700
     543,88
 98
                science wrote:sci flbbcd bb sig(nodim) 4130
 99
      543.90
                science wrote:sci flbbcd bb_units(nodim) 0.014373282
100
     543.93
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
101
     543.96
102
     543.98
                science wrote:sci_flbbcd_cdom_sig(nodim) 127
     544.01
                science wrote:sci_flbbcd_cdom_units(ppb) 7.352
103
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
104
     544.03
105
     544.06
                science wrote:sci_flbbcd_chlor_sig(nodim) 98
106
      544.23
                science wrote:sci flbbcd chlor_units(ug/1) 0.7497
                science wrote:sci_flbbcd_therm(nodim) 539
107
     544.26
                science wrote:sci flbbcd bb ref(nodim) 700
     544,97
108
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
109
      545.00
                science wrote:sci flbbcd bb units(nodim) 0.014373282
110
      545.03
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
111
     545.05
                science wrote:sci_flbbcd_cdom_sig(nodim) 121
112
      545.08
                science wrote:sci_flbbcd_cdom_units(ppb) 6.8006
113
     545.10
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
1.14
     545.18
                science wrote:sci_flbbcd_chlor_sig(nodim) 76
      545.21
115
                science wrote:sci_flbbcd_chlor_units(ug/l) 0.4879
116
      545,23
      545.26
                science wrote:sci_flbbcd_therm(nodim) 538
117
                science wrote:sci_m_present_secs_into mission(sec) 545.806518554688
118
     545.72
                science wrote:sci m present time(timestamp) 1695151247.80652
      545.74
119
                science wrote:sci_flbbcd_bb_ref(nodim) 700
120
     546.12
                science wrote:sci_flbbcd_bb_sig(nodim) 999
121
      546.14
                science wrote:sci_flbbcd_bb_units(nodim) 0.0033459
122
      546,17
                science wrote:sci flbbcd cdom ref(nodim) 460
123
     546.20
                science wrote:sci_flbbcd_cdom_sig(nodim) 62
124
     546.22
125
                science wrote:sci_flbbcd_cdom_units(ppb) 1.3785
     546.25
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
126
     546,27
                science wrote:sci_flbbcd_chlor_sig(nodim) 47
127
     546.30
                science wrote:sci_flbbcd_chlor_units(ug/l) 0.1428
128
     546.47
                science wrote:sci flbbcd therm(nodim) 538
129
      546.49
      547.29 42 science wrote: sci_flbbcd_bb_ref(nodim) 700
130
                science wrote:sci_flbbcd_bb_sig(nodim) 477
     547.32
131
                science wrote:sci_flbbcd_bb_units(nodim) 0.001507416
      547,35
132
                science wrote:sci flbbcd cdom ref(nodim) 460
133
      547.37
                science wrote:sci_flbbcd_cdom_sig(nodim) 56
134
      547,40
```

```
science wrote:sci_flbbcd_cdom_units(ppb) 0.8271
     547,43
135,
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
136
     547.45
                science wrote:sci_flbbcd_chlor_sig(nodim) 40
     547.48
137
                Sent science:s:m cycle number(nodim) 143-
138
     547.50
                science wrote:sci flbbcd chlor units(ug/l) 0.0595
139
     547.65
                science wrote:sci flbbcd therm(nodim) 538
     547.67
140
                science wrote:sci flbbcd bb_ref(nodim) 700
141
     548.38
                science wrote:sci_flbbcd_bb_sig(nodim) 1362
     548.41
142
                science wrote:sci_flbbcd_bb_units(nodim) 0.004624386
143
     548.43
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
144
     548,46
                science wrote:sci_flbbcd_cdom_sig(nodim) 841
145
     548.49
                science wrote:sci_flbbcd_cdom_units(ppb) 72.9686
146
     548.51
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
147
     548.54
                science wrote:sci flbbcd chlor_sig(nodim) 237
148
     548.56
     548.74
                science wrote:sci flbbcd chlor_units(ug/l) 2.4038
149
                science wrote:sci flbbcd_therm(nodim) 538
150
     548.76
                science wrote:sci_flbbcd_bb_ref(nodim) 700
151
     549.53
                science wrote: sci flbbcd bb sig(nodim) 4130
     549.55
152
                science wrote:sci flbbcd bb_units(nodim) 0.014373282
153
     549.58
                science wrote:sci flbbcd_cdom_ref(nodim) 460
     549.60
154
                science wrote:sci_flbbcd_cdom_sig(nodim) 4130
     549.64
155
                science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
156
     549.66
                science wrote:sci flbbcd_chlor_ref(nodim) 695
157
     549.69
                science wrote:sci_flbbcd_chlor_sig(nodim) 3075
158
     549.71
                science wrote:sci_flbbcd chlor_units(ug/l) 36.176
     549.79
159
                science wrote:sci_flbbcd_therm(nodim) 538
160
     549.81
                science wrote:sci_m_present_secs_into_mission(sec) 549.808776855469
161
     549.84
                science wrote:sci m present time(timestamp) 1695151251.80878
     549,86
162
                science wrote:sci_flbbcd_bb_ref(nodim) 700
163
     550.63
                science wrote:sci flbbcd bb sig(nodim) 4130
164
     550.66
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
165
     550.68
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
     550,71
166
                science wrote:sci_flbbcd_cdom_sig(nodim) 4130
167
     550.74
                science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
168
     550,76
                science wrote:sci flbbcd chlor ref(nodim) 695
169
     550.79
                science wrote:sci flbbcd chlor sig(nodim) 4130
     550.82
170
     551.00
                science wrote:sci flbbcd chlor units(ug/l) 48.7305
171
                science wrote:sci flbbcd therm(nodim) 538
172
      551.02
      551.39 43 Sent science:s:m cycle number(nodim) 144-
173
                science wrote:sci flbbcd bb ref(nodim) 700
174
      551.74
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
175
      551.77
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
176
     551.79
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
      551.82
177
                science wrote:sci_flbbcd_cdom_sig(nodim) 4130
     551.85
178
                science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
179
     551.87
                science wrote:sci flbbcd chlor ref(nodim) 695
180
     551,90
     551.92
                science wrote:sci flbbcd chlor sig(nodim) 4130
181
                science wrote:sci_flbbcd_chlor_units(ug/l) 48.7305
182
     552.01
                science wrote:sci flbbcd therm(nodim) 538
1.83
     552.03
                science wrote:sci flbbcd bb ref(nodim) 700
184
     552.90
                science wrote:sci flbbcd bb sig(nodim) 4130
185
     552.93
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
186
     552.96
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
187
     552.99
                science wrote:sci_flbbcd_cdom_sig(nodim) 4130
188
     553.01
                science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
189
     553.04
                science wrote:sci flbbcd_chlor_ref(nodim) 695
190
     553.06
                science wrote:sci flbbcd chlor sig(nodim) 4130
191
     553.09
     553.26
                science wrote:sci flbbcd chlor units(ug/l) 48.7305
192
                science wrote:sci flbbcd therm(nodim) 537
193
     553.28
                science wrote:sci_m_present_secs_into_mission(sec) 553.802673339844
194
     553,74
                science wrote:sci m present time(timestamp) 1695151255.80267
195
     553.76
                science wrote:sci flbbcd bb ref(nodim) 700
196
      554.00
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
197
     554.02
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
198
     554.04
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
199
     554.12
                science wrote:sci_flbbcd_cdom_sig(nodim) 4130
200
      554.15
                science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
201
      554.18
```

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202
      554.20
                 science wrote:sci flbbcd chlor ref(nodim) 695
                 science wrote:sci_flbbcd_chlor_sig(nodim) 4130
203
      554.23
                 science wrote:sci_flbbcd_chlor_units(ug/1) 48.7305
204
      554.25
                 science wrote:sci_flbbcd_therm(nodim) 537
205
      554.28
206
      555.14
                 science wrote:sci_flbbcd_bb_ref(nodim) 700
                 science wrote:sci_flbbcd_bb_sig(nodim) 4130
207
      555.16
208
      555.19
                 science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
209
      555.22
                 science wrote:sci flbbcd cdom ref(nodim) 460
      555.24
                 science wrote:sci_flbbcd_cdom_sig(nodim) 4130
210
211
      555.27
                 science wrote:sci_flbbcd cdom units(ppb) 375.2277
212
      555,30
                 science wrote:sci_flbbcd chlor ref(nodim) 695
213
      555.32
                 science wrote:sci_flbbcd_chlor sig(nodim) 4130
214
      555.65 44 science wrote:sci flbbcd chlor units(uq/l) 48.7305
                 science wrote:sci_flbbcd_therm(nodim) 537
215
      555,67
                 Sent science:s:m_cycle_number(nodim) 145-
216
      555.70
217
      556.30
                 science wrote:sci_flbbcd_bb_ref(nodim) 700
218
      556.32
                 science wrote:sci_flbbcd_bb_sig(nodim) 4130
219
      556.34
                 science wrote:sci flbbcd bb units(nodim) 0.014373282
220
      556.37
                 science wrote: sci flbbcd cdom ref(nodim) 460
                 science wrote:sci_flbbcd_cdom_sig(nodim) 4130
221
      556.40
                 science wrote:sci_flbbcd_cdom_units(ppb) 375.2277
222
      556.43
223
      556,45
                 science wrote:sci_flbbcd chlor ref(nodim) 695
                 science wrote:sci_flbbcd_chlor_sig(nodim) 4130
224
      556.48
                 science wrote:sci_flbbcd_chlor_units(ug/l) 48.7305
225
      556.56
                 science wrote:sci_flbbcd_therm(nodim) 537
226
      556.58
227
      557.39
                 science wrote:sci_flbbcd_bb_ref(nodim) 700
228
      557.41
                 science wrote:sci_flbbcd_bb_sig(nodim) 4130
229
      557.44
                 science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
230
      557.47
                 science wrote:sci_flbbcd_cdom_ref(nodim) 460
231
      557.50
                science wrote:sci flbbcd cdom sig(nodim) 3863
                 science wrote:sci flbbcd cdom units(ppb) 350.6904
232
      557.52
                 science wrote:sci flbbcd chlor_ref(nodim) 695
233
      557.54
234
      557.58
                science wrote:sci_flbbcd_chlor_sig(nodim) 4074
235
      557.75
                science wrote:sci flbbcd chlor units(ug/l) 48.0641
236
      557.77
                science wrote:sci_flbbcd therm(nodim) 537
237
      557.80
                science wrote:sci_m_present secs into mission(sec) 557.802978515625
                science wrote:sci_m_present_time(timestamp) 1695151259.80298
238
      557.83
239
      558.54
                science wrote:sci_flbbcd_bb_ref(nodim) 700
240
      558.57
                science wrote:sci_flbbcd_bb_sig(nodim) 2509
241
      558.60
                science wrote:sci_flbbcd_bb_units(nodim) 0.00866412
242
      558.62
                science wrote:sci_flbbcd cdom_ref(nodim) 460
243
      558.65
                science wrote:sci flbbcd cdom sig(nodim) 68
                science wrote:sci_flbbcd_cdom_units(ppb) 1.9299
244
      558.67
245
      558.70
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
246
      558.73
                science wrote:sci flbbcd chlor sig(nodim) 57
247
      558.81
                science wrote:sci_flbbcd chlor units(ug/l) 0.2618
                science wrote:sci flbbcd therm(nodim) 537
248
      558.83
249
      559.64 46 Sent science:s:m_cycle_number(nodim) 146-
250
      559.95
                science wrote:sci_flbbcd_bb_ref(nodim) 700
251
      559.97
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
252
      559.99
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
253
      560.02
                science wrote:sci_flbbcd_cdom ref(nodim) 460
254
      560.05
                science wrote:sci flbbcd cdom sig(nodim) 143
255
      560.07
                science wrote:sci flbbcd cdom units(ppb) 8.8224
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
256
      560.09
257
      560.12
                science wrote:sci_flbbcd chlor sig(nodim) 115
                science wrote:sci_flbbcd_chlor_units(ug/1) 0.952
258
      560.15
259
      560.21
                science wrote:sci_flbbcd therm(nodim) 537
260
                science wrote:sci_flbbcd_bb_ref(nodim) 700
      560.82
261
      560.84
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
262
      560.87
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
263
      560.90
                science wrote:sci_flbbcd_cdom_ref(nodim) 460
264
      560.92
                science wrote:sci_flbbcd_cdom_sig(nodim) 165
265
      560.95
                science wrote: sci flbbcd cdom units(ppb) 10.8442
      560.98
                science wrote:sci_flbbcd_chlor_ref(nodim) 695
266
267
      561.00
                science wrote:sci_flbbcd_chlor_sig(nodim) 128
268
      561.08
                science wrote:sci_flbbcd_chlor_units(ug/l) 1.1067
```

```
science wrote:sci flbbcd therm(nodim) 537
269
      561.10
                science wrote:sci m present_secs_into_mission(sec) 561.802856445312
270
      561.71
                science wrote:sci_m_present_time(timestamp) 1695151263.80286
271
      561.74
                science wrote:sci_flbbcd_bb_ref(nodim) 700
      561.96
272
                science wrote:sci_flbbcd_bb_sig(nodim) 4130
      561.99
273
                science wrote:sci_flbbcd_bb_units(nodim) 0.014373282
      562,01
274
                science wrote:sci flbbcd_cdom_ref(nodim) 460
      562.04
275
                science wrote:sci flbbcd cdom sig(nodim) 169
276
      562.07
                science wrote:sci flbbcd cdom units(ppb) 11.2118
      562.10
277
                science wrote:sci flbbcd_chlor_ref(nodim) 695
278
      562.12
                science wrote:sci_flbbcd_chlor_sig(nodim) 130
279
      562.14
                science wrote:sci_flbbcd_chlor_units(ug/l) 1.1305
280
      562.22
                science wrote:sci flbbcd therm(nodim) 537
281
      562.25
282
      loadmission sci off.mi
283
284
      load mission(): Opening Mission file: SCI_OFF.MI
      Setting SENSOR c_science_on(enum) value 1.000000
285
      Setting SENSOR c science all on(secs) value -1.000000
286
      Setting SENSOR c_science_send_all(bool) value 0.000000
287
      Setting SENSOR u_use_ctd_depth_for_flying(bool) value 0.000000
288
289
290
291
     GliderLAB I -3 >
```