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1:  /*
2:      libxbee - a C library to aid the use of Digi's Series 1 XBee modules
3:      running in API mode (AP=2).
4:
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17:     You should have received a copy of the GNU General Public License
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19: */
20:
21: #define TRUE 1
22: #define FALSE 0
23:
24: #define ISREADY                                     \
25:     if (!xbee_ready) {                             \
26:         fprintf(stderr, "XBee: Run xbee_setup() first!...\n"); \
27:         exit(1);                                     \
28:     }
29:
30: #define M8(x) (x & 0xFF)
31: #define FDO(x,y,z)                                     \
32:     if (((x) = fdopen((y),(z))) == NULL) {           \
33:         perror("fopen()");                           \
34:         return(-1);                                    \
35:     }
36: #define FO(x,y,z)                                     \
37:     if (((x) = open((y),(z))) == -1) {                \
38:         perror("open()");                             \
39:         return(-1);                                    \
40:     }
41:
42: struct t_data {
43:     unsigned char data[128];
44:     unsigned int length;
45: };
46: typedef struct t_data t_data;
47:
48: struct t_info {
49:     int i;
50: };
51: typedef struct t_info t_info;
52:
53: struct {
54:     xbee_con *conlist;
55:     pthread_mutex_t conmutex;
56:
57:     xbee_pkt *pktlist;
58:     pthread_mutex_t pktmutex;
59:
60:     pthread_mutex_t sendmutex;
61:
62:     pthread_t listent;
63:
64:     xbee_con *con_txStatus;
65:
66:     int ttyfd;
67:     FILE *tty;
68:
69:     int logfd;
70:     FILE *log;
71:
72:     char *path;
73: } xbee;
74:
75: static void *Xmalloc(size_t size);
76: static void *Xrealloc(void *ptr, size_t size);
77: #define Xfree(x) Xfree2((void **)&x)
78: static void Xfree2(void **ptr);
79:
80: static int xbee_parse_io(xbee_pkt *p, unsigned char *d, int maskOffset, int sampleOffset, int sample);
81: static void xbee_listen_wrapper(t_info *info);
82: static int xbee_listen(t_info *info);
83: static unsigned char xbee_getByte(void);
84: static unsigned char xbee_getRawByte(void);
85: static int xbee_matchpktcon(xbee_pkt *pkt, xbee_con *con);

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86:
87: static t_data *xbee_make_pkt(unsigned char *data, int len);
88: static void xbee_send_pkt(t_data *pkt);
```