```c
    return m;
}

int _read(FILE *f, char *buf, int n) {
    *buf = UART4_read();
    if (*buf == '\r') {
        *buf = '\n';
        _write(f, "\r", 1);
    }
    _write(f, buf, 1);
    return 1;
}

int _close(FILE *f) {
    return 0;
}

int _fstat(FILE *f, void *p) {
    *((int*)p + 4) = 0x81B6;     //enable read/write
    return 0;
}

int _isatty(FILE *f) {
    return 1;
}

int _lseek(FILE *f, int o, int w) {
    return 0;
}

void* _sbrk(int i) {
    return (void*)0x20006000;
}

#endif /* SYSTEM_H_ */
```