```
:::::::::::::: more01.c ::::::::::::::
/* more01.c  - version 0.1 of more
 *      read and print 24 lines then pause for a few special commands
 */

#include        <stdio.h>

#define PAGELEN 24
#define LINELEN 512

void do_more(FILE *);
int  see_more();

int main( int ac , char *av[] )
{
        FILE    *fp;

        if ( ac == 1 )
                do_more( stdin );
        else
                while ( --ac )
                        if ( (fp = fopen( *++av , "r" )) != NULL )
                        {
                                do_more( fp ) ;
                                fclose( fp );
                        }
                        else
                                exit(1);
        return 0;
}

void do_more( FILE *fp )
/*
 *  read PAGELEN lines, then call see_more() for further instructions
 */
{
        char    line[LINELEN];
        int     num_of_lines = 0;
        int     see_more(), reply;

        while ( fgets( line, LINELEN, fp ) ){           /* more input  */
                if ( num_of_lines == PAGELEN ) {        /* full screen?         */
                        reply = see_more();             /* y: ask user  */
                        if ( reply == 0 )               /*    n: done   */
                                break;
                        num_of_lines -= reply;          /* reset count */
                }
                if ( fputs( line, stdout )  == EOF )    /* show line   */
                        exit(1);                        /* or die      */
                num_of_lines++;                                 /* count it     */
        }
}

int see_more()
/*
 *      print message, wait for response, return # of lines to advance
 *      q means no, space means yes, CR means one line
 */
{
        int     c;

        printf("\033[7m more? \033[m");                 /* reverse on a vt100  */
        while( (c=getchar()) != EOF )                   /* get response         */
        {
                if ( c == ’q’ )                         /* q -> N               */
                        return 0;
                if ( c == ’ ’ )                         /* ’ ’ => next page     */
                        return PAGELEN;                 /* how many to show     */
                if ( c == ’\n’ )                /* Enter key => 1 line */
                        return 1;
        }
        return 0;
}
```

```
:::::::::::::: more02.c ::::::::::::::
/*  more02.c  - version 0.2 of more
 *      read and print 24 lines then pause for a few special commands
 *      feature of version 0.2: reads from /dev/tty for commands
 */
#include        <stdio.h>

#define PAGELEN 24
#define LINELEN 512

void do_more(FILE *);
int see_more(FILE *);

int main( int ac , char *av[] )
{
        FILE    *fp;

        if ( ac == 1 )
                do_more( stdin );
        else
                while ( --ac )
                        if ( (fp = fopen( *++av , "r" )) != NULL )
                        {
                                do_more( fp ) ;
                                fclose( fp );
                        }
                        else
                                exit(1);
        return 0;
}

void do_more( FILE *fp )
/*
 *  read PAGELEN lines, then call see_more() for further instructions
 */
{
        char    line[LINELEN];
        int     num_of_lines = 0;
        int     see_more(FILE *), reply;
        FILE    *fp_tty;

        fp_tty = fopen( "/dev/tty", "r" );         /* NEW: cmd stream   */
        if ( fp_tty == NULL )                      /* if open fails     */
                exit(1);                             /* no use in running */

        while ( fgets( line, LINELEN, fp ) ){          /* more input  */
                if ( num_of_lines == PAGELEN ) {        /* full screen?        */
                        reply = see_more(fp_tty);  /* NEW: pass FILE *  */
                        if ( reply == 0 )               /*    n: done   */
                                break;
                        num_of_lines -= reply;          /* reset count */
                }
                if ( fputs( line, stdout )  == EOF )  /* show line   */
                        exit(1);                        /* or die      */
                num_of_lines++;                                 /* count it    */
        }
}

int see_more(FILE *cmd)                                    /* NEW: accepts arg  */
/*
 *      print message, wait for response, return # of lines to advance
 *      q means no, space means yes, CR means one line
 */
{
        int     c;

        printf("\033[7m more? \033[m");                  /* reverse on a vt100  */
        while( (c=getc(cmd)) != EOF )           /* NEW: reads from tty  */
        {
                if ( c == ’q’ )                         /* q -> N              */
                        return 0;
                if ( c == ’ ’ )                         /* ’ ’ => next page    */
                        return PAGELEN;                 /* how many to show    */
                if ( c == ’\n’ )                /* Enter key => 1 line */
                        return 1;
        }
        return 0;
}
```