

NAME

gtmsg -- locate a message in an ASCII data buffer

SYNOPSIS

```
gtmsg(func, inbuf);
int func;
struct GMBUF *inbuf;
```

DESCRIPTION

Gtmsg locates a message by reading data from an input file into an ASCII data buffer and breaking it into individual messages terminated by some termination character, such as 03. The input file must be opened by the calling program prior to calling gtmsg. The ASCII data buffer, which is a structure of type GMBUF, is declared and allocated by the calling routine. The starting address of the message is returned in the structure variable, gm_bufp; the length of the message, excluding the message termination character, is returned in the structure variable, gm_len; and one of the following values is returned in r0. If an error is detected, gtmsg returns one of the values discussed below under **DIAGNOSTICS**; otherwise, gtmsg returns one of the following values:

```
GMR_EOF   End of File detected.
GMR_INIT Initialization successfully performed.
GMR_MFND Valid message found.
```

The argument inbuf is the address of a data buffer whose format is:

```
struct GMBUF
{
    int am_fd;
    int gm_len;
    int gm_delim;
    int gm_lncnt;
    int gm_nchar;
    char *gm_lptr[GM_MAX_LNS];
    char *gm_fptr;
    char *gm_bufp;
    char *gm_bufe;
    char gm_buf[GM_BUFSIZ + 2];
};
where
```

gm fd is the file descriptor of an open input file.

gm len contains the length of the message, but not including the message termination character.

gm delim is the message termination character, such as 03.

gm lncnt contains a count of the number of lines in the message. The calling program may use this variable, but

should not change its value.

gm nchar contains the number of characters in the buffer after a read has been completed. This variable should not be used or changed by the calling program.

gm lptr contains the starting addresses of each line in the message.

gm fptr is the address of a requested field in some specified line of the message. This variable is used primarily by the getfld() routine.

gm bufp is the address of the message in gm buf.

gm bufe is a pointer to the next message in gm buf. This variable should not be used or changed by the calling program.

gm buf is the data buffer and is usually not written into by the calling program.

The argument func should contain one of the following values:

GMF_INIT if the structure variables gm len, gm bufp, gm bufe, gm lncnt, and gm nchar, are to be initialized for a new file,

GMF_NBMSG if blank messages in the input file are not to be returned to the calling program, and

GMF_BMSG if all messages, including blank messages, are to be returned to the calling program.

The calling program should perform the following sequence of instructions to initialize appropriate structure variables before calling this subroutine to extract messages:

```
<structure>.gm fd= <file descriptor of input file>;
<structure>.gm delim= <message termination character>;
gtmsg(GMF_INIT, &<structure>);
```

Once the above initialization has been performed, the calling routine can locate a message by performing one of the following instructions:

```
gtmsg(GMF_NBMSG, &<structure>);
gtmsg(GMF_BMSG, &<structure>);
```

FILES

/usr/include/gtmhdr.h which contains the definitions for **GMBUF**,
GM_BUFSIZ, **GM_MAX_LNS**, **GMF_INIT**, **GMF_NBMSG**, **GMF_BMSG**, **GMR_IERR**,
GMR_BLNS, **GMR_BMSG**, and **GMR_IOERR**.

LIBRARY

/lib/lib1.a

SEE ALSO

getfld(3L), cpyfld(3L)

DIAGNOSTICS

The error codes returned by this subroutine are:

GMR_IERR Internal error.
GMR_BLNS Number of lines in message > **GM_MAX_LNS**
GMR_BMSG Message longer than **GM_BUFSIZ**.
GMR_IOERR I/O error.

BUGS