RPI Communications and Signal Processing Laboratory COMPUTER DOCUMENTATION	Bulletin No. U-102	Rev. 1.0	Page 1

TITLE: BSD 2.9 Errors in the Floating Point Fortran Library

ABSTRACT: This bulletin describes errors and fixes in the Floating Point Fortran Libary running under BSD 2.9. The fixes needed are in 2 files. In each case the files are preceded with a Path name and the incorrect version of the file. The corrected version follows the incorrect version. The portions which require change are underlined in both versions.

DESCRIPTION:

After the changes on the following pages are made the Fortran Libraries must be remade. This is done by typing the following commands:

```
cd /usr/src/lib/c
fcompall
fmklib
fovcompall
fovmklib
```

These commands should now operate with out any syntax errors. They recompile and install the Fortran Libraries for PDP-11 CPU's without the floating point hardware option.

[Use additional sheets if necessary]

Prepared by: Douglas Lyon	Date: 7/27/87	Total Pages: 6

Form #CSPL.1 by D.L.

BSD 2.9 Errors in the Floating Point Fortran Library

This bulletin describes errors and fixes in the Floating Point Fortran Library running under BSD 2.9. The fixes needed are in two files. In each case the files are preceded with a path name and the incorrect version of the file. The corrected version follows. The changed portions are underlined in the correct and incorrect versions.

In File /USR/SRC/LIB/C/GEN/PKON.C the incorrect version was:

```
/*      @(#)pkon.c      2.1     SCCS id keyword */
#include <sgtty.h>
struct  piocb {
        unsigned t;
        short   psize;
        short   mode;
        short   state;
        char    window;
};
pkon(fd, size)
        if (size&037 || size > 128) {
                write(2,"bad packet size\n",16);
                return(-1);
        }
        return(turnon(fd, size, 2, 0));
turnon(fd,psize,window,mode)
struct piocb p;
        p.window = window;
        p.psize = psize;
        p.mode = mode;
        p.t = 1;
        if (ioctl(fd,TIOCSETD,&p) < 0 || ioctl(fd,DIOCGETP,&p) < 0) {
                return(-1);
        }
        return(p.psize);
pkoff(fd)
struct piocb p;
        close(fd);
        return;
/*
        p.t = 0;
        return(ioctl(fd,TIOCSETD,&p));
*/
```

The Corrected version is:

```
/*      @(#)pkon.c      2.1     SCCS id keyword */
#include <sgtty.h>
struct  piocb {
        unsigned t;
        short   psize;
        short   mode;
```

```
        short   state;
        char    window;
};
pkon(fd, size)
        if (size&037 || size > 128) {
                write(2,"bad packet size\n",16);
                return(-1);
        }
        return(turnon(fd, size, 2, 0));
turnon(fd,psize,window,mode)
struct piocb p;
        p.window = window;
        p.psize = psize;
        p.mode = mode;
        p.t = 1;
        if (ioctl(fd,TIOCSETD,&p) < 0 || ioctl(fd,TIOCGETP,&p) < 0) {
                return(-1);
        }
        return(p.psize);
pkoff(fd)
struct piocb p;
        close(fd);
        return;
/*
        p.t = 0;
        return(ioctl(fd,TIOCSETD,&p));
*/
```

In File /USR/SRC/LIB/C/GEN/ERRLST.C the incorrect version was:

```
/* @(#)errlst.c 4 4 (Berkeley) 82/04/01 */
char    *sys errlist[] = {
        "Error 0",
        "Not owner",                            /*  1 - EPERM */
        "No such file or directory",            /*  2 - ENOENT */
        "No such process",                      /*  3 - ESRCH */
        "Interrupted system call",              /*  4 - EINTR */
        "I/O error",                            /*  5 - EIO */
        "No such device or address",            /*  6 - ENXIO */
        "Arg list too long",                    /*  7 - E2BIG */
        "Exec format error",                    /*  8 - ENOEXEC */
        "Bad file number",                      /*  9 - EBADF */
        "No children",                          /* 10 - ECHILD */
        "No more processes",                    /* 11 - EAGAIN */
        "Not enough core",                      /* 12 - ENOMEM */
        "Permission denied",                    /* 13 - EACCES */
        "Bad address",                          /* 14 - EFAULT */
        "Block device required",                /* 15 - ENOTBLK */
        "Exclusive use facility busy",          /* 16 - EBUSY */
        "File exists",                          /* 17 - EEXIST */
        "Cross-device link",                    /* 18 - EXDEV */
        "No such device",                       /* 19 - ENODEV */
        "Not a directory",                      /* 20 - ENOTDIR */
```

```
        "Is a directory".                               /* 21 - EISDIR */
        "Invalid argument".                             /* 22 - EINVAL */
        "File table overflow".                          /* 23 - ENFILE */
        "Too many open files".                          /* 24 - EMFILE */
        "Inappropriate ioctl for device".               /* 25 - ENOTTY */
        "Text file busy".                               /* 26 - ETXTBSY */
        "File too large".                               /* 27 - EFBIG */
        "No space left on device".                      /* 28 - ENOSPC */
        "Illegal seek".                                 /* 29 - ESPIPE */
        "Read-only file system".                        /* 30 - EROFS */
        "Too many links".                               /* 31 - EMLINK */
        "Broken pipe",                                  /* 32 - EPIPE */
/* math software */
        "Argument too large".                           /* 33 - EDOM */
        "Result too large".                             /* 34 - ERANGE */
/* quotas */
        "Disk quota exceeded".                          /* 35 - EQUOT */
/* symbolic links */
        "Too many levels of symbolic links".            /* 36 - ELOOP */
/* non-blocking ration now in progress".                    /* 38 - EINPROGRESS
 */
        "Operation already in progress".                /* 39 - EALREADY */
/* ipc/network software */
        /* argument errors */
        "Socket operation on non-socket".               /* 40 - ENOTSOCK */
        "Destination address required".                 /* 41 - EDESTADDRREQ */
        "Message too long".                             /* 42 - EMSGSIZE */
        "Protocol wrong type for socket".               /* 43 - EPROTOTYPE */
        "Protocol not available".                       /* 44 - ENOPROTOOPT */
        "Protocol not supported".                       /* 45 - EPROTONOSUPPORT
 */
        "Socket type not supported".                    /* 46 - ESOCKTNOSUPPORT
 */
        "Operation not supported on socket".            /* 47 - EOPNOTSUPP */
        "Protocol family not supported".               /* 50 - EADDRINUSE */
        "Can't assign requested address".               /* 51 - EADDRNOTAVAIL *
/
        /* operational errors */
        "Network is down".                              /* 52 - ENETDOWN */
        "Network is unreachable",                       /* 53 - ENETUNREACH */
        "Network dropped connection on reset".          /* 54 - ENETRESET */
        "Software caused connection abort".             /* 55 - ECONNABORTED */
        "Connection reset by peer",                     /* 56 - ECONNRESET */
        "No buffer space available".                    /* 57 - ENOBUFS */
        "Socket is already connected",                  /* 58 - EISCONN */
        "Socket is not connected".                      /* 59 - ENOTCONN */
        "Can't send after socket shutdown".             /* 60 - ESHUTDOWN */
        "Too many references: can't splice".            /* 61 - ETOOMANYREFS */
        "Connection timed out".                         /* 62 - ETIMEDOUT */
        "Connection refused".                           /* 63 - ECONNREFUSED */
/* 65 - EHOSTDOWN */
        "Host is unreachable"                           /* 66 - EHOSTUNREACH */
};
#endif  UCB_NET
```

```
int     sys nerr = { sizeof sys errlist/sizeof sys errlist[0] };

The correct version is:
/* @(#)errlst.c 4 4 (Berkeley) 82/04/01 */
char    *sys errlist[] = {
        "Error 0".
        "Not owner".                                    /*  1 - EPERM */
        "No such file or directory".                    /*  2 - ENOENT */
        "No such process".                              /*  3 - ESRCH */
        "Interrupted system call".                      /*  4 - EINTR */
        "I/O error".                                    /*  5 - EIO */
        "No such device or address".                    /*  6 - ENXIO */
        "Arg list too long".                            /*  7 - E2BIG */
        "Exec format error".                            /*  8 - ENOEXEC */
        "Bad file number".                              /*  9 - EBADF */
        "No children".                                  /* 10 - ECHILD */
        "No more processes".                            /* 11 - EAGAIN */
        "Not enough core".                              /* 12 - ENOMEM */
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        "Block device required".                        /* 15 - ENOTBLK */
        "Exclusive use facility busy".                  /* 16 - EBUSY */
        "File exists".                                  /* 17 - EEXIST */
        "Cross-device link".                            /* 18 - EXDEV */
        "No such device".                               /* 19 - ENODEV */
        "Not a directory".                              /* 20 - ENOTDIR */
        "Is a directory".                               /* 21 - EISDIR */
        "Invalid argument".                             /* 22 - EINVAL */
        "File table overflow".                          /* 23 - ENFILE */
        "Too many open files".                          /* 24 - EMFILE */
        "Inappropriate ioctl for device".               /* 25 - ENOTTY */
        "Text file busy".                               /* 26 - ETXTBSY */
        "File too large".                               /* 27 - EFBIG */
        "No space left on device".                      /* 28 - ENOSPC */
        "Illegal seek".                                 /* 29 - ESPIPE */
        "Read-only file system".                        /* 30 - EROFS */
        "Too many links".                               /* 31 - EMLINK */
        "Broken pipe".                                  /* 32 - EPIPE */
/* math software */
        "Argument too large".                           /* 33 - EDOM */
        "Result too large".                             /* 34 - ERANGE */
/* quotas */
        "Disk quota exceeded".                          /* 35 - EQUOT */
/* symbolic links */
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        "Destination address required".                 /* 41 - EDESTADDRREQ */
        "Message too long".                             /* 42 - EMSGSIZE */
        "Protocol wrong type for socket".               /* 43 - EPROTOTYPE */
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```
        "Protocol not available",                       /* 44 - ENOPROTOOPT */
        "Protocol not supported",                       /* 45 - EPROTONOSUPPORT
 */
        "Socket type not supported",                    /* 46 - ESOCKTNOSUPPORT
 */
        "Operation not supported on socket",            /* 47 - EOPNOTSUPP */
        "Protocol family not supported",               /* 50 - EADDRINUSE */
        "Can't assign requested address",               /* 51 - EADDRNOTAVAIL *
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        /* operational errors */
        "Network is down",                              /* 52 - ENETDOWN */
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        "Too many references: can't splice",            /* 61 - ETOOMANYREFS */
        "Connection timed out",                         /* 62 - ETIMEDOUT */
        "Connection refused",                           /* 63 - ECONNREFUSED */
/* 65 - EHOSTDOWN */
        "Host is unreachable"                           /* 66 - EHOSTUNREACH */
#endif  UCB_NET
};
int     sys_nerr = { sizeof sys_errlist/sizeof sys_errlist[0] };
```