
Subject: cross platform i/o problem

Posted by [mbastian](#) on Fri, 01 Mar 1996 08:00:00 GMT

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Hi Peter

I transfer binary back and forth between vax's and unicies all the time.

It is not clear to me if you are using formatted or unformatted reads/writes.

For binary files the vax fortran i/o places a two byte record delimiter at the start of each record (0x3). Prepend these two each unformatted write and your problems should go away.

I have a few C #define to do all this for me when I want to produce unformatted fortran binary files in c.

the following is not particularly pretty but hey this is VMS after all !!!

```
#if defined (unix)
#define BINARY_EXTENSIONS
#define FREAD(a,b,c,d)  fread (a,b,c,d)
#define FWRITE(a,b,c,d) fwrite (a,b,c,d)
#else
#include <stdlib.h>
#define BINARY_EXTENSIONS , "rfm=var"
#define FREAD(a,b,c,d)  { \
    int z;          \
    char * ptr_1 , * ptr_2;  \
    ptr_1 = malloc ( b + 2 );  \
    ptr_2 = ( char * ) a;  \
    for ( z = 0 ; z < c ; z ++ ) {  \
        fread ( ptr_1 , b + 2 , 1 , d ); \
        memmove ( ptr_2 , ptr_1 + 2 , b ); \
        ptr_2 += b;  \
    }  \
    free ( ptr_1 );  \
}
#define FWRITE(a,b,c,d)  { \
    int z;          \
    char * ptr_1 , * ptr_2;  \
    ptr_1 = malloc ( b + 2 );  \
    * ( short * ) ptr_1 = 0x3;  \
    ptr_2 = ( char * ) a;  \
    for ( z = 0 ; z < c ; z ++ ) {  \
        memmove ( ptr_1 + 2 , ptr_2 , b ); \
        fwrite ( ptr_1 , b + 2 , 1 , d ); \
        ptr_2 += b;  \
    }
}
```

```
    } \
    free ( ptr_1 ); \
  }
#endif

/* open data file */

if (( fd = fopen ( file , "rb" BINARY_EXTENSIONS)) == NULL ) {
  fprintf ( stderr , "Could not open in file %s\n" , file );
  exit ( -1 );
}
```

Hope this helps ...

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