Subject: IDL_FileOpen problem?
Posted by Nando Iavarone on Tue, 13 Jun 2000 07:00:00 GMT
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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>
Dear all,

I have some problems reading files using DLM under win platform.

I am using IDL 5.2.1 and VisualC++ compiler.
<p>I wrote a little file called 'foo', using the simple
<p>IDL> data = dindgen(10)

IDL> openW, 1, 'foo'

IDL> writeU, 1, data

IDL> close, 1
<p>After it I need to read them from a c-function in a DLM.

<p>- The code below works fine on unix platform (SGI and linux) but
it can't read data if used on WIN 98, NT.

Anyone knows what's happening? A flag problem in the open?

Note that after the IDL_FileOpen the same procedure is repeated using
simple fopen, and all is ok.
<p>- The documentation about the IDL_FileOpen (IDL - External Development
Guide) does not match the prototype definition in the file external.h.
This is for EDG 5.0, 5.1, 5.2,5.3

<p>This is the simple testmodule.c of the IDL distribution suitably modified.
This means you already have the makefile (or the win batch) to compile
it.

<p>Thank you for your help,

Nando.

<p>#include <stdio.h>

#include "export.h"
<p>/* Handy macro */

#define ARRLEN(arr) (sizeof(arr)/sizeof(arr[0]))
<p>/*

 * Define message codes and their corresponding printf(3) format

 * strings. Note that message codes start at zero and each one
is

 * one less that the previous one. Codes must be monotonic and

 * contiguous.

 */

static IDL_MSG_DEF msg_arr[] =

{

#define M_TM_INPRO

0

  { "M_TM_INPRO",   "%NThis is from a loadable
module procedure." },

#define M_TM_INFUN

-1

  { "M_TM_INFUN",   "%NThis is from a loadable
module function." },

};

<p>/*

 * The load function fills in this message block handle with the

 * opaque handle to the message block used for this module. The
other

 * routines can then use it to throw errors from this block.

 */

static IDL_MSG_BLOCK msg_block;

<p>/* Implementation of the TESTPRO IDL procedure */
<p>static void testpro(int argc, IDL_VPTR *argv)

{
<p>   FILE *fPtr=NULL;

    int err = 0;

    int i = 0;

    int lun=10;
<p>   char   tmpstr[100];

    char   chararr[100];
<p>   double dblarr[10];

    double buf[10];
<p>   IDL_VPTR idlErr;

    IDL_VPTR ArgV[2];

    IDL_VPTR Lun;

    IDL_VPTR tmp;
<p>   IDL_FILE_STAT FileStat;
<p>   IDL_LONG dim[IDL_MAX_ARRAY_DIM];

<p>

    tmp = IDL_StrToSTRING("starting testpro\n");

    IDL_Print(1,&tmp,NULL);
<p>

     Lun   &nb sp;
= IDL_Gettmp();

    Lun->type   = IDL_TYP_LONG;

    Lun->value.l = lun;

    ArgV[0] = Lun;

    ArgV[1] = IDL_StrToSTRING("foo");

    /* read */

    IDL_Print(1, &ArgV[1], NULL);

    err = IDL_FileOpen(2, ArgV, NULL, IDL_OPEN_R,
IDL_F_DOS_BINARY,
TRUE, 0);

    if (err == FALSE)

    {

          tmp = IDL_StrToSTRING("can't
open......\n");

          IDL_Print(1,&tmp,NULL);

          return ;

    }

    IDL_FileStat(lun, &FileStat);

    err = fread(dblarr, 10*sizeof(double), 1, FileStat.fptr);

     if (err != 1)

    {

          tmp = IDL_StrToSTRING("can't
read......\n");

          IDL_Print(1,&tmp,NULL);

          /* return; */

    }

    tmp = IDL_StrToSTRING("after fread\n");

    IDL_Print(1,&tmp,NULL);

    IDL_FileClose(1, &ArgV[0], NULL);
<p>   dim[0]=10;

    tmp = IDL_ImportArray(1, dim, IDL_TYP_DOUBLE, (UCHAR*)dblarr,
NULL, NULL);

    IDL_Print(1, &tmp, NULL);

<p>

          /* fopen */
<p>   if((fPtr = fopen(
"foo", "rb")) == NULL)

          {

tmp = IDL_StrToSTRING("can't fopen ......\n");

IDL_Print(1,&tmp,NULL);

          }

          else

          {

err = fread(dblarr, 10*sizeof(double), 1, fPtr);

if (err != 1)

{

tmp = IDL_StrToSTRING("can't read.....\n");

IDL_Print(1,&tmp,NULL);

/* return; */

}

tmp = IDL_ImportArray(1, dim, IDL_TYP_DOUBLE, (UCHAR*)dblarr, NULL, NULL);

IDL_Print(1, &tmp, NULL);
<p>

fclose(fPtr);

          }

<p>   /* cleanup */

    IDL_Deltmp(Lun);

    IDL_Deltmp(tmp);

}

<p>/* Implementation of the TESTFUN IDL function */

static IDL_VPTR testfun(int argc, IDL_VPTR *argv)

{
<p> IDL_MessageFromBlock(msg_block, M_TM_INFUN, IDL_MSG_RET);

  return IDL_StrToSTRING("TESTFUN");

}

<p>int IDL_Load(void)

{

  /*

   * These tables contain information on the functions and
procedures

   * that make up the TESTMODULE DLM. The information contained
in these

   * tables must be identical to that contained in testmodule.dlm.

   */

  static IDL_SYSFUN_DEF function_addr[] = {

    { testfun, "TESTFUN", 0, IDL_MAXPARAMS, 0},

  };
<p> static IDL_SYSFUN_DEF procedure_addr[] = {

    { (IDL_FUN_RET) testpro, "TESTPRO", 0, IDL_MAX_ARRAY_DIM,
0},

  };

<p> /*

   * Create a message block to hold our messages. Save its
handle where

   * the other routines can access it.

   */

  if (!(msg_block = IDL_MessageDefineBlock("Testmodule", ARRLEN(msg_arr),

msg_arr)))

    return IDL_FALSE;
<p> /*

   * Register our routine. The routines must be specified
exactly the same

   * as in testmodule.dlm.

   */

  return IDL_AddSystemRoutine(function_addr, TRUE, ARRLEN(function_addr))

    && IDL_AddSystemRoutine(procedure_addr,
FALSE, ARRLEN(procedure_addr));

}

<pre>--
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    FrdndVrn@altavista.net</pre>
 </html>

Subject: Re: IDL_FileOpen problem?
Posted by Nando Iavarone on Fri, 16 Jun 2000 07:00:00 GMT
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<!doctype html public "-//w3c//dtd html 4.0 transitional//en">
<html>
<body bgcolor="#FFFFFF">
Vince Hradil wrote:
<blockquote TYPE=CITE><style></style>
Is
it possible that this is an 'endian' problem?</blockquote>

<p>
I don't think.

It is the same machine that writes and reads, without byte swap.
<pre>--
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Subject: Re: IDL_FileOpen problem?
Posted by Vince Hradil on Fri, 16 Jun 2000 07:00:00 GMT
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<HTML><HEAD>
<META content="text/html; charset=iso-8859-1" http-equiv=Content-Type>
<META content="MSHTML 5.00.2919.6307" name=GENERATOR>
<STYLE></STYLE>
</HEAD>
<BODY bgColor=#ffffff>

<DIV><FONT face=Arial size=2>Is it possible that this is an 'endian'
problem?</FONT></DIV>
<BLOCKQUOTE
style="BORDER-LEFT: #000000 2px solid; MARGIN-LEFT: 5px; MARGIN-RIGHT: 0px;
PADDING-LEFT: 5px; PADDING-RIGHT: 0px">
  <DIV>"Nando Iavarone" <<A
  href="mailto:f.iavarone@acsys.it">f.iavarone@acsys.it</A>> wrote in message
  <A

href="news:39466AB0.FBA20EE4@acsys.it">news:39466AB0.FBA20EE4@acsys.it</A>...</DIV>
Ben
  Tupper wrote:
  <BLOCKQUOTE TYPE="CITE">Hello,
    <P>My eyes tend to glaze over when I see c code... but I think I see that

you are expecting your 'foo' file to be binary format.
If so, you
    should set the BINARY keyword to OPENW since the default
behavior on WIN
    platforms is to write in text format.
 </P></BLOCKQUOTE>
  <P>
Hi Ben,
sorry for your eyes ;o)
  <P>I don't think so because I am writing unformatted.
In fact the result
  is the same (and IDL_FileOpen should warrantee portability).
I tried also
  to write the file using the IDL_FileOpen in write mode and using the c-fwrite
  function. Nothing changes.
  <P>I am waiting for the RSINC support answer.
  <P>Thank you.
   Best regards,

          Nando <PRE>--
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</BLOCKQUOTE></BODY></HTML>