Subject: MATHSTAT_154: Dynamically Loadable Module is unavailable on this platform: IMSL
Posted by Lauren Hunkins on Mon, 14 Jun 2010 22:12:21 GMT
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Hello all,

I'm fairly new at using IDL and I'm working with someone else's code. I've made a few minor modifications but none that should effect the code that is giving me trouble. Inside the IDL library file IMSL_LINPROG.pro it calls the system function MATHSTAT_154. I'm not sure how to fix this.

```
; Call the system function.
  ;
  err_status = 0L
  MATHSTAT_154, type, err_status, a_cvt, $
                b_cvt, $
                c_cvt, $
                m, $
                n, $
                bu_cvt, $
                dual_spc, $
                irtype_cvt, $
                itmax_cvt, $
                obj_spc, $
                xlb_cvt, $
                xub_cvt, $
                result
  IF (ARG_PRESENT(dual)) THEN dual = dual_spc
  IF (ARG_PRESENT(obj)) THEN obj = obj_spc
  ;
  ; Return
  RETURN, result
END
```

Thanks,

Lauren

Subject: Re: math
Posted by MC on Mon, 22 Nov 2010 12:04:00 GMT
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There are several routines, search the online help for "differential equation"

Here's one from the help:

```
PRO LSODETEST

  ; Define the step size:
  H = 0.5
   ; Define an initial X value:
  X = 0.0
   ; Define initial Y values:
  Y = [4.0, 6.0]
   ; Integrate over the interval (0, 0.5):
  result = LSODE(Y, X, H, 'differential')

  ; Print the result:
  PRINT, result
END
FUNCTION differential, X, Y
  RETURN, [-0.5 * Y[0], 4.0 - 0.3 * Y[1] - 0.1 * Y[0]]
END
```

Note that function can have more parameters passed that can control
its behaviour, which may be what you are asking for in Q3. I can't
understand your 2nd and 4th Q's

Cheers MC

On Nov 22, 9:58 am, amin farhang <farhang.a...@gmail.com> wrote:
> dear readers,
> i have some questions about IDL
> 1. how can i solve differential equations in IDL? i know that the RK4
> function do it but it is very obscure, may you introduce a simple
> method to solve all differential equations?
> 2. what is the simplest way for taking the integrals directly
> (specially 1D integrals) without write a function?
> 3. How do I define a function that its parameters could be changed in
> every calling (for example in every step of FOR-DO loop, function
> return a new value)?
> 4. does functions could return a paramedical equations? if OK how?
> thank you so much and sorry for my many questions
> best regards,

Subject: Re: math
Posted by Ammar Yusuf on Mon, 22 Nov 2010 19:13:00 GMT
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On Nov 22, 7:04 am, MC <morefl...@gmail.com> wrote:

```
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>  equation"
>
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>
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>
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>      ; Define an initial X value:
>     X = 0.0
>      ; Define initial Y values:
>     Y = [4.0, 6.0]
>      ; Integrate over the interval (0, 0.5):
>     result = LSODE(Y, X, H, 'differential')
>
>     ; Print the result:
>     PRINT, result
>  END
>  FUNCTION differential, X, Y
>     RETURN, [-0.5 * Y[0], 4.0 - 0.3 * Y[1] - 0.1 * Y[0]]
>  END
>
>  Note that function can have more parameters passed that can control
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>>  thank you so much and sorry for my many questions
>>  best regards,
>
>
```

For this

2. what is the simplest way for taking the integrals directly
(specially 1D integrals) without write a function?

You can probably use the total function. I'm pretty sure that
would be the easiest.

Subject: Re: math
Posted by amin farhang on Mon, 22 Nov 2010 20:01:21 GMT
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thank you so much
