Subject: Re: Contour dimension problem
Posted by Kenneth P. Bowman on Fri, 25 Nov 2011 16:02:06 GMT
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In article <cca14042-fbbd-40da-a693-70828da8c455@s17g2000pra.googlegroups.com>,
 Mat <mga1@waikato.ac.nz> wrote:

> I'm trying to create a contour plot of temperature, depth and time.
> Right now I have the temperature at 13 depths and 30169 date/times as
> "temp" FLOAT [13, 30169], "depths" Int[13], and "time" FLOAT[30169].
>
> I don't have my dimensions right for the following command:
>
> IDL> contour, temp, time, depths
> % CONTOUR: Array must have 2 dimensions: TEMP.
> % Execution halted at: $MAIN$
>
> Does anyone know the command to contour this data with one degree
> contours?
>
> Thanks for your help

Try

  HELP, temp, time, depths

If temp = temp(depth, time)

Then you should call

  CONTOUR, temp, depth, time

I hope your data is very smooth in the time dimension.

Ken Bowman

Subject: Re: Contour dimension problem
Posted by Mat on Fri, 25 Nov 2011 22:18:38 GMT
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On Nov 26, 5:02 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article < cca14042-fbbd-40da-a693-70828da8c...@s17g2000pra.googlegroup s.com >,
>
> Mat <m...@waikato.ac.nz> wrote:
>> I'm trying to create a contour plot of temperature, depth and time.
>> Right now I have the temperature at 13 depths and 30169 date/times as
>> "temp" FLOAT [13, 30169], "depths" Int[13], and "time" FLOAT[30169].

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>> Does anyone know the command to contour this data with one degree
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>> Thanks for your help
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> Try
>
> HELP, temp, time, depths
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> If temp = temp(depth, time)
>
> Then you should call
>
> CONTOUR, temp, depth, time
>
> I hope your data is very smooth in the time dimension.
>
> Ken Bowman

Hi Ken,

Thanks for your help. My data is in 15 min intervals. I would think a matrix is 2d but it still gives me the same error when I create a matrix of temperature and depth! Is there an ideal way to format the data to make this easier. What if I put all the data into a matrix of time, depth, temp. OR separate into 3 vectors?

Subject: Re: Contour dimension problem
Posted by Kenneth P. Bowman on Sat, 26 Nov 2011 13:57:58 GMT
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In article <f717fe01-26a2-47db-b9f8-1a1157eac29c@a2g2000prb.googlegroups.com>,
 Mat <mga1@waikato.ac.nz> wrote:

>> In article
>> < cca14042-fbbd-40da-a693-70828da8c...@s17g2000pra.googlegroup s.com >,
>>

>>> I'm trying to create a contour plot of temperature, depth and time.

>>> Right now I have the temperature at 13 depths and 30169 date/times as
>>> "temp" FLOAT [13, 30169], "depths" Int[13], and "time" FLOAT[30169].
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>>> contours?
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>>> Thanks for your help
>>
>> Try
>>

>>
>> If temp = temp(depth, time)
>>
>> Then you should call
>>

>>
>> I hope your data is very smooth in the time dimension.
>>
>> Ken Bowman
>
> Hi Ken,
>
> Thanks for your help. My data is in 15 min intervals. I would think a
> matrix is 2d but it still gives me the same error when I create a
> matrix of temperature and depth! Is there an ideal way to format the
> data to make this easier. What if I put all the data into a matrix of
> time, depth, temp. OR separate into 3 vectors?

What is the result when you do this?

HELP, temp, time, depths

It sounds like you think that temp is a 2-D array, but it is not.

Ken

Subject: Re: Contour dimension problem
Posted by Mat on Sat, 26 Nov 2011 20:40:47 GMT

On Nov 27, 2:57 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> In article < f717fe01-26a2-47db-b9f8-1a1157eac...@a2g2000prb.googlegroups .com >,
>
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>
>
> Mat <m...@waikato.ac.nz> wrote:
>> On Nov 26, 5:02 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
>>> In article
>>> < cca14042-fbbd-40da-a693-70828da8c...@s17g2000pra.googlegroup s.com >,
>
>>> Mat <m...@waikato.ac.nz> wrote:
>>>> I'm trying to create a contour plot of temperature, depth and time.
>>>> Right now I have the temperature at 13 depths and 30169 date/times as
>>>> "temp" FLOAT [13, 30169], "depths" Int[13], and "time" FLOAT[30169].
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>>>> Thanks for your help
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>>> Try
>
>>> HELP, temp, time, depths
>
>>> If temp = temp(depth, time)
>
>>> Then you should call
>
>>> CONTOUR, temp, depth, time
>
>>> I hope your data is very smooth in the time dimension.
>
>>> Ken Bowman
>
>> Hi Ken,

>
>> Thanks for your help. My data is in 15 min intervals. I would think a
>> matrix is 2d but it still gives me the same error when I create a
>> matrix of temperature and depth! Is there an ideal way to format the
>> data to make this easier. What if I put all the data into a matrix of
>> time, depth, temp. OR separate into 3 vectors?
>
> What is the result when you do this?
>
> HELP, temp, time, depths
>
> It sounds like you think that temp is a 2-D array, but it is not.
>
> Ken

Hi Ken,

I thought depth_time was 2d but I see its not. Anyway here is the
result of help:
IDL> help, temp, time, depth
TEMP STRUCT = -> <Anonymous> Array[1]
TIME STRUCT = -> <Anonymous> Array[1]
DEPTH STRUCT = -> <Anonymous> Array[1]

I thought this would work for vectors but I get:

IDL> contour, temp,time,depth, /Irregular
% CONTOUR: Struct expression not allowed in this context: TIME.
% Execution halted at: $MAIN$

One thing to note is that this is a very large dataset, with depth,
time, and temp all FLOAT[392197].

Cheers,

Mat

Subject: Re: Contour dimension problem
Posted by Kenneth P. Bowman on Sat, 26 Nov 2011 21:23:57 GMT
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In article <edd5e854-16f7-4e76-903a-2728823af6cd@d37g2000prg.googlegroups.com>,
 Mat <mga1@waikato.ac.nz> wrote:

> I thought depth_time was 2d but I see its not. Anyway here is the
> result of help:
> IDL> help, temp, time, depth

> TEMP STRUCT = -> <Anonymous> Array[1]
> TIME STRUCT = -> <Anonymous> Array[1]
> DEPTH STRUCT = -> <Anonymous> Array[1]
>
> I thought this would work for vectors but I get:
>
> IDL> contour, temp,time,depth, /Irregular
> % CONTOUR: Struct expression not allowed in this context: TIME.
> % Execution halted at: $MAIN$

CONTOUR is expecting an array, and you are giving it a structure. The data you want is probably inside the structure TEMP.

Try

HELP, temp, time, depth, /STR

to find out what is inside your structures.

Then you need to do something like

CONTOUR, temp.something, time.something, depth.something

where "something" is the name of the array inside each structure.

Also, it sounds like you are an IDL beginner. I recommend you get an IDL book (like mine, which is aimed at beginners). Go to Amazon and search for "bowman idl"

Ken

Subject: Re: Contour dimension problem
Posted by Mat on Sat, 26 Nov 2011 21:55:36 GMT
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Hi Ken,

Thanks for your help that's done the trick. You are right I'm a beginner, I'm buying your book for kindle right now!

CONTOUR, temp.FIELD1, time.FIELD1, depth.FIELD1, /irregular, nlevels=10

Subject: Re: Contour dimension problem
Posted by Kenneth P. Bowman on Sun, 27 Nov 2011 18:09:35 GMT

In article <f1b44776-9451-43c8-b7de-e7da09bd9da1@q27g2000prh.googlegroups.com>,
 Mat <mga1@waikato.ac.nz> wrote:

> Hi Ken,
>

> beginner, I'm buying your book for kindle right now!
>
> CONTOUR, temp.FIELD1, time.FIELD1, depth.FIELD1, /irregular,
> nlevels=10

I don't think you need the /IRREGULAR keyword.

Ken