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Subject: Re: contour & why pv-wave?

Posted by [thompson](#) on Wed, 03 Nov 1993 15:05:27 GMT

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mtadams@news.Colorado.EDU (Matthew T. Adams) writes:

> 2) Is PV Wave a subset of IDL functions, or is it its own product? What does it  
> have to do with IDL? Does it share the syntax or something?

At one time PV-Wave and IDL were the same product. IDL was developed by Research Systems, Inc. At one point RSI entered into a contract with Precision Visuals to market IDL under the name PV-Wave. Apparently part of this contract gave Precision Visuals (now Visual Numerics) the right to buy out the source code and go off on their own. So now IDL and PV-Wave are now separate and competitive products with a common heritage. Each has been substantially augmented since then. A lot of things, like the basic command syntax, are the same for the two products (a lot of procedures can be used in both with little or no modification), but a significant fraction, such as widget support, are different because they were added or modified after the split.

This is all explained in gory detail in the FAQ which is posted once a month.

Bill

P.S. I tried to do a direct reply, but it didn't go through for some reason.

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Subject: Re: contour & why pv-wave?

Posted by [paul](#) on Wed, 03 Nov 1993 16:46:20 GMT

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In article <2b438m\$94q@tali.hsc.colorado.edu>, mtadams@news.Colorado.EDU (Matthew T. Adams) writes:

> Hi all,

>

> I was wondering 2 things:

>

> 1) I've had to hack a bit around the contour procedure. Is there a contour  
> \*function\* that will return to me an array of contour points or a structure that  
> has contour headers and points (without my having to write the points to a file &  
> then read the file (this was my hack))?

In IDL, use

contour, data, PATH\_FILENAME=file\_name, . . .

This writes the each contour path to the data file, and can be

read back in. The IDL Reference Guide for Version 3.1 describes this on page 1-48. NOTE: The way the data is written to the file changed in release 3.1!!! so routines are not backward compatible. It caused us more grief than it seems worth.

Also consider the /CLOSE parameter if you are trying to fill contours. There is a bug in 3.1 which sometimes puts the wrong value into the HIGH value of the contour\_header. (3.5beta works much better).

Once the data file is created, it can be read in with

```
openr, iu, file_name, /GET_LUN
hdr = {contour_header, type:0B, high:0B, level:0, num:0, value:0.0 }
release = FLOAT(!Version.release)
```

```
while not EOF(iu) begin
  readu, iu, hdr
```

```
  if ( release ge 3.1 ) then begin
    x = fltarr( hdr.num )
    y = fltarr( hdr.num )
    readu, iu, x,y
  endif else begin
    d = fltarr( 2, hdr.num)
    readu, iu, d
    x = reform( d(0,*) )
    y = reform( d(1,*) )
  endelse
```

```
; The x and y values are in normalized coordinates
```

```
end
```

```
>
> 2) Is PV Wave a subset of IDL functions, or is it its own product? What does it
> have to do with IDL? Does it share the syntax or something?
>
> thanks,
>
> matthew
>
> _____
> mtadams@columbine.hsc.colorado.edu
> Matthew T. Adams
> University of Colorado Health Sciences Center
> Denver, CO
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