Subject: Re: Uncaught PARTICLE_TRACE exception
Posted by Karl Schultz on Thu, 27 May 2004 18:25:44 GMT
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"Ryan" <rab209@hotmail.com> wrote in message
news:f845cc9f.0405270943.1a586412@posting.google.com...
> Hi all,
>
> I'm using the PARTICLE_TRACE procedure to simulate a particle flow
> through a 3-D velocity field, which, in most cases, works well.
>
> However, on the rare occasion where the seeds don't go anywhere
> (usually due to the velocity vectors immediately pushing the seeds out
> of the simulation volume), the program crashes, and IDL tells me that
>
> % Array dimensions must be greater than 0.
>
> and it points me to the line where my PARTICLE_TRACE call is made.
> When examining the output values after the crash, the "Verts" and
> "Normals" arrays are fine, but the "Conn" parameter is undefined...
>
> Which makes me think that PARTICLE_TRACE needs to have at least one
> connecting line for it to work w/o crashing... which is unfortunate,
> since I can't .cont my way back afterwards, nor can I automatically
> predict if that would happen beforehand by looking at the data.
>
> Any ideas on if this is what's really happening and/or a workaround?
>
> Thanks much,
> Ryan

You are right about it not working when there are no lines to return.
This has already been found and fixed for IDL 6.1.
In 6.1, when there are no lines to return, the conn array is returned with
the contents [-1].
I'm sorry that I can't think of a good workaround.

Karl

Subject: Re: Uncaught PARTICLE_TRACE exception
Posted by Karl Schultz on Fri, 28 May 2004 15:23:42 GMT
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"Karl Schultz" <kschultz_no_spam@rsinc.com> wrote in message
news:10bcckpsje3st3e@corp.supernews.com...
>
> "Ryan" <rab209@hotmail.com> wrote in message

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> the contents [-1].
> I'm sorry that I can't think of a good workaround.

I don't know why, but sometimes the answer pops up in my head a day later.

Use a CATCH block:

```
pro pt
   data = FLTARR(2, 500, 500)
   data[1,*,*] = 100000
   seeds = [[500,500]]
   catch, err
   if err ne 0 then begin
      print, "In catch"
      help, verts
      help, conn
      conn = [-1]
      catch, /cancel
   endif $
```

```
   else $
      PARTICLE_TRACE, data, seeds, verts, conn
   help, verts
   help, conn
end
```