Subject: Re: Vectorized great circle calculations
Posted by Maxwell Peck on Thu, 01 Apr 2010 21:02:36 GMT

Not that this really answers the question but this site

http://williams.best.vwh.net/avform.htm

Is very good for finding these sort of formula, most of them are an almost copy and paste into IDL.

Max

On Apr 2, 5:22 am, "Kenneth P. Bowman" <k-bow...@null.edu> wrote:
> Can anyone point me to vectorized versions of LL_ARC_DISTANCE and
> MAP_2POINTS or something similar? (BTW, I nominate those two routines
> for worst mnemonic value among all IDL routine names.)
>
> I need to compute the lon-lat coordinates of points a specified
> distance along great circles between many points and a target point.
>
> I am hoping to avoid having to puzzle through the spherical
> trigonometry identities yet again in order to roll my own.
>
> Thanks, Ken

Subject: Re: Vectorized great circle calculations
Posted by Kenneth P. Bowman on Thu, 01 Apr 2010 21:24:13 GMT

In article
<19d72d21-41e1-4f5a-9694-f80d9d4a6da1@j21g2000yqh.googlegroups.com>,
 Maxwell Peck <maxjpeck@gmail.com> wrote:

> Not that this really answers the question but this site
>
> http://williams.best.vwh.net/avform.htm
>
> Is very good for finding these sort of formula, most of them are an
> almost copy and paste into IDL.
>
> Max
>

>> Can anyone point me to vectorized versions of LL_ARC_DISTANCE and

>> for worst mnemonic value among all IDL routine names.)

>>
>> I need to compute the lon-lat coordinates of points a specified
>> distance along great circles between many points and a target point.
>>
>> I am hoping to avoid having to puzzle through the spherical
>> trigonometry identities yet again in order to roll my own.
>>
>> Thanks, Ken

I have already vectorized the code for LL_ARC_DISTANCE.
It was relatively straightforward. MAP_2POINTS is uglier,
as it does a bunch of different things, but it shouldn't
be too hard to vectorize the part of it that I care about.

But, this is not the most productive use of my time.

Thanks, Ken

Subject: Re: Vectorized great circle calculations
Posted by David Fanning on Thu, 01 Apr 2010 21:54:51 GMT
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Kenneth P. Bowman writes:

> But, this is not the most productive use of my time.

Well, not unless you write it up and make it available to
the rest of us. Then, it's a tremedous service to the
community and an *extremely* productive (to us!) use
of your time. ;-)

Cheers,

David

P.S. I always try to remind myself of this when I've
spent three days becoming an "expert" on all the wrong
ways to do something.

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/

Sepore ma de ni thue. ("Perhaps thos speakest truth.")

Subject: Re: Vectorized great circle calculations
Posted by Kenneth P. Bowman on Fri, 02 Apr 2010 14:15:52 GMT
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In article <MPG.261ec4147785685d9896c5@news.giganews.com>,
 David Fanning <news@dfanning.com> wrote:

> Kenneth P. Bowman writes:
>
>> But, this is not the most productive use of my time.
>
> Well, not unless you write it up and make it available to
> the rest of us. Then, it's a tremedous service to the
> community and an *extremely* productive (to us!) use
> of your time. ;-)

I was mostly thinking this was not a productive use of
my time because I can't believe that something this recent
in the library is not vectorized. LL_ARC_DISTANCE dates
back to 1992, but the earliest date in MAP_2POINTS is 2000.

Since the source code contains the usual ITTVIS copyright
notices, I feel compelled to ask them for permission before
posting my modified versions. I will do so if they give me
permission.

Ken

Subject: Re: Vectorized great circle calculations
Posted by David Fanning on Fri, 02 Apr 2010 14:35:36 GMT
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Kenneth P. Bowman writes:

> Since the source code contains the usual ITTVIS copyright
> notices, I feel compelled to ask them for permission before
> posting my modified versions. I will do so if they give me
> permission.

With their recently demonstrated openness to customer feedback,
I wouldn't be surprised if they welcomed these submissions and
hustled them directly into IDL 8. :-)

Cheers,

David

--
David Fanning, Ph.D.
Fanning Software Consulting, Inc.
Coyote's Guide to IDL Programming: http://www.dfanning.com/
Sepore ma de ni thui. ("Perhaps thou speakest truth.")