
Subject: Re: IDL routine to fill in gaps in line? / Searching IDL routine libraries?

Posted by [rogass](#) on Tue, 18 Jan 2011 20:05:31 GMT

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On 18 Jan., 17:24, Robin Wilson <ro...@rtwilson.com> wrote:

> Hi all,

>

> I've recently realised what a wealth of useful code is in the various
> IDL routine libraries available on the internet. However, what I haven't
> found is a very good way of searching them. For example, I would never
> have learnt about the very useful COLLAPSE routine by Marc Buie if he
> hadn't posted about it as a response to one of my questions here.

>

> So, my question is two-fold:

>

> 1. Does anyone know of a routine in any of the IDL user-written
> libraries that fills in gaps in a line on a binary image to make it a
> full and complete line. For example, take in the following input (where
> * is a nonzero element and . is a zero element):

>

> .. * ...

>
> .. * ...

>*

>*

>*

>*

>

> And fill in the gaps to make a complete line like:

>

> .. * ...

> .. * ...

> .. * * * .

>*

>*

>*

>

> 2. I have a suspicion that the code I need to do the above is out there
> somewhere. Does anyone have any particularly useful tips for searching
> all of the IDL libraries on the internet to find routines you need?

>

> Cheers,

>

> Robin

>

> -----

> PhD Student

> University of Southampton, UK

Hi, for searching you might use this one: <http://www.astro.washington.edu/docs/idl/htmlhelp/>

As Paolo stated you have to define your problem more precisely. However, it seems to me that you want to apply an algorithm which searches on the one hand a tree and on the other hand an interpolation. Maybe, you can try the following:

0. refine your problem
1. start at a random, boundary near data point
2. compute euclidic distances by 'distance_measure'
3. search for next data point and mark last one as visited
- 3.a) next data point distance greater than $\sqrt{2}$ ->interpolate missing data points of shortest path (incorporate all data points which are close enough to some extend and not interpolated)
- 3.b) continue
4. 'Canny' and 'dilate' or 'erode' or 'thin' your data to remove 'spikes'

Cheers

CR
