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Subject: Segmentation Algorithm  
Posted by [menafe](#) on Fri, 26 Nov 1999 08:00:00 GMT  
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Dear all,

I'm new to IDL and as such I hope you excuse my ignorance. My problem is not really a problem but more of a question really. We've been trying to develop an application which reads in stacks of Magnetic Resonance Images (i.e. volume data) and then binarizes the image to leave only the required identifiable structure and from it generates a 3D STL surface file.

For this we use SEARCH3D, but unfortunately this uses the Marching Cubes algorithm, which is not very good (i.e. not a smooth surface) or economical generating polygons. Is there any other available algorithm for this in IDL?

The "growing balloon" algorithm would be ideal for this, but we found no mention of it on the documentation. Anyone has tried to implement this before? I much more experienced in C than I am in IDL, so I was hoping someone had something similar already developed. If not... oh well!

Cheerio!  
AL

--

Alfonso Ferrandez | [menafe@leeds.ac.uk](mailto:menafe@leeds.ac.uk)  
<http://www.mech-eng.leeds.ac.uk/~ferrandez/>  
Bio-Engineering Research Group  
The University of Leeds, UK

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Subject: Re: Segmentation Algorithm  
Posted by [ronn](#) on Sat, 27 Nov 1999 08:00:00 GMT  
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In article <383E9F8B.90173C41@leeds.ac.uk>,  
[menafe@leeds.ac.uk](mailto:menafe@leeds.ac.uk) (Alfonso Ferrandez) wrote:

> The "growing balloon" algorithm would be ideal for this, but we found  
> no  
> mention of it on the documentation. Anyone has tried to implement this  
> before? I much more experienced in C than I am in IDL, so I was hoping  
> someone had something similar already developed. If not... oh well!  
>  
Al,

If no one else has done this, the "growing balloon" algorithm sounds

like something I could use. If you have an example in C I could turn it into a DLM (Dynamic Loadable Module) and send it back to you.

Ronn

--

Ronn Kling  
Ronn Kling Consulting  
[www.rlkling.com](http://www.rlkling.com)

Sent via Deja.com <http://www.deja.com/>  
Before you buy.

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Subject: Re: Segmentation Algorithm  
Posted by [alexander.loew](#) on Sun, 28 Nov 1999 08:00:00 GMT  
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Hi,  
>  
> The "growing balloon" algorithm would be ideal for this, but we found no  
> mention of it on the documentation. Anyone has tried to implement this  
> before? I much more experienced in C than I am in IDL, so I was hoping  
> someone had something similar already developed. If not... oh well!  
perhaps this algorithm already exists in C ?! Just an idea: Why  
doesn't you use a shared object which is called from IDL to solve your  
problem?

Alex

\*\*\*\*\*

Alexander Loew  
[alexander.loew@stud.uni-muenchen.de](mailto:alexander.loew@stud.uni-muenchen.de)

"Ein Spezialist ist jemand, der von immer weniger

Ein Generalist ist jemand, der von immer mehr

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Subject: Re: Segmentation Algorithm  
Posted by [menafe](#) on Thu, 02 Dec 1999 08:00:00 GMT  
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In article <81p5s8\$bns\$1@nnrp1.deja.com>,  
Ronn Kling <[ronn@rlkling.com](mailto:ronn@rlkling.com)> wrote:  
> AI,

>  
> If no one else has done this, the "growing  
balloon" algorithm sounds  
> like something I could use. If you have an  
example in C I could turn it  
> into a DLM (Dynamic Loadable Module) and send  
it back to you.  
>  
> Ronn  
>  
> --  
> Ronn Kling  
> Ronn Kling Consulting  
> [www.rkling.com](http://www.rkling.com)

Ronn,

I don't have a C source code but Matlab code is  
freely available and so are plenty of papers  
about the method. Yesterday I attended a seminar  
in Denmark and people have used it in conjunction  
with active contours. IMPRESSIVE, I tell you, and  
the maths behind it are quite simple!

Contact me by e-mail if you want more details.

Cheers!

AL

P.S. Sorry for not replying earlier, but I'm  
still in Denmark, and I had to use DejaNews to  
check the group.

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