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 http://www.mech-eng.leeds.ac.uk/~ferrandez/ Bio-Engineering Research Group The University of Leeds, UK

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 (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

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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

"Ein Spezialist ist jemand, der von immer weniger

Ein Generalist ist jemand, der von immer mehr

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> wrote: > 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

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 conjuction 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!

ΑL

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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