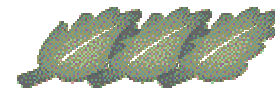**Project Presentation**

Astronomy

Simulum:
Simulation of star movements

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Friday, 09/06/06

A brief summary..

So, previously, you have been introduced with Simulus and some of its functions. Now that I've taken a closer look, I can say that it is actually a rather interesting application, that can be extended and enhanced, in order to become a powerful tool for those interested in astronomy.

Last time enhancements like snapshots and color changes have been proposed, but while dealing and experimenting with the project, it became obvious to me that more fundamental functions should be included first…

First things, first!!

Let me give you a hint on how this project works:

When dealing with star simulaton, certain attributes like gravity, number of the stars studied, zoom, speed etc must be taken into account.

Mr Meyling here, has decided for us (the junior astronomers and unlucky developpers!!!) some default values. So, once the simulation begins, default values are loaded and simulation begins.

You are probably thinking that everything is ok so far! Wrong!!

I am trying to make a point here, so no worry, I'm cutting to the chest…

So, where's the problem?

Simulus shows us its ugly face when the user actually changes some of the default values in order to study the different star behaviour. It's a rather sensible request, isn't it?

So, attributes change, stars are been studied and eventually the junior astronomer closes the application and goes sunbathing (!!! just a reminder that summer's coming).

I know what you're thinking! No, the new attributes are not lost! When the astronomer comes back home (tainted etc) the application will start the simulation loading the values assigned just before the shut down.

This is actually good, but I couldn't stop thinking "xmmm…."

What "xmmm… " means:

Client-based thinking:

If I where astronomer and I was using Simulus, I would be very disappointed by the fact that the application allows me to perform just one simulation at the time.

What I if I were performing an essay and I would like to study a few combinations without having to change the attributes again and again?

And even if I didn't bother doing so, I would have to write down on paper the combination of attributes studied now, and ten minutes later and the next day and so on.

And take a minute to imagine what happens if I lose this paper..

Not, so practical, don't you think??

java.util.Properties to the rescue…

A potential solution to this problem would be several simulation profiles according to the user's needs. What do I mean by that:

How would you feel like, if the Simulus always started loading its default values?

And if a small JButton, labeled as "Save", was added??

And if another one next to it, labeled as "Open" ???

You're getting the picture, right?

I think that it will be really practical if the user could easily save the specific simulation attributes and refer back to it anytime he likes, using just a button and not having to type the attributes again and again.

All these will be implemented using some .properties files, but we'll talk further on the subject next time.. (Beware!)

"Xmmm…" : the sequel

Theroritically speaking, so far, problem solved. But since we care so much about the junior astronomer, why don't we go a step further? Ok, the attributes studied will remain saved, but in case of an essay that miserable piece of paper will still remain in play.

We do not want that. So, I was thinking about a data export. Another JButton, "Export", this time, that would produce .txt or .csv files with the simulation attributes.

Not bad idea. And perhaps, a printing option???

LoL!! I've gone too far, we'll see next time…

We have reached the end for another time…

Feel free to tell me your opinions, ask me questions and give me some advice…

(I'm gonna need it!! ☺)