Scientific Visualization

Final Project - II

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1 Data Preparation

I am using the provided data of the supernovae from:
http://people.sc.fsu.edu/ wwang3/sedov-2d-inhomogeneous-ppm-4lev.tar

I have downloaded this dataset on my machine, above link did not work in the web browser for me. But I was able to download the data using `wget`.

Listing 1: bash

```
wget http://people.sc.fsu.edu/~wwang3/sedov-2d-inhomogeneous-ppm-4lev.tar
```

Since the given data is in `tar` format, I used the following commands to extract it into a folder.

Listing 2: bash

```
mkdir dataset &&\
tar -xf sedov-2d-inhomogeneous-ppm-4lev.tar -C ./dataset/
```

2 Software package

For the initial visualization of the data I am using **Visit**, I will be trying to visualize all the data using **VTK**.

3 Preliminary Result

For the preliminary visualization, I have used `Visit`. The output I got for time step 50 is given below in figure 1.

To visualize the HDF5 data, I am using the `FLASH` plugin in visit. I did try using `Enzo_1.0` which did not work for this data.

The command which I used to run visit is:

Listing 3: bash

```
visit -o "dataset/sedov_hdf5_plt_cnt_*",FLASH
```

Visualizing the data using `Visit`, I have discovered that, I need to use a logarithmic scale for visualization to make all changes in data visible.

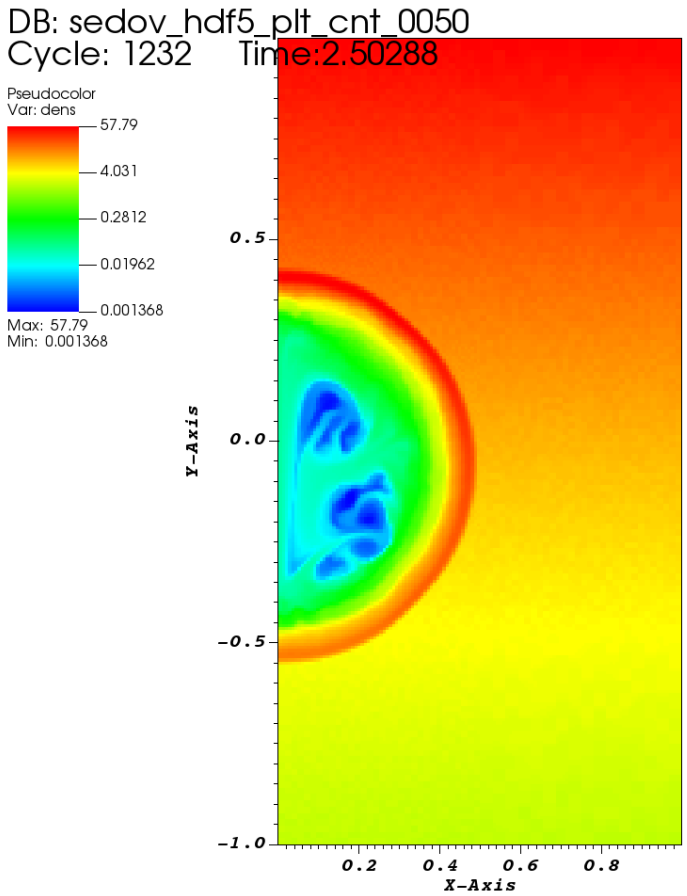

Figure 1: Visit Output

user: amk23j
Tue Apr 16 08:52:16 2024