

Before opening the program, there is some prepared work to do.

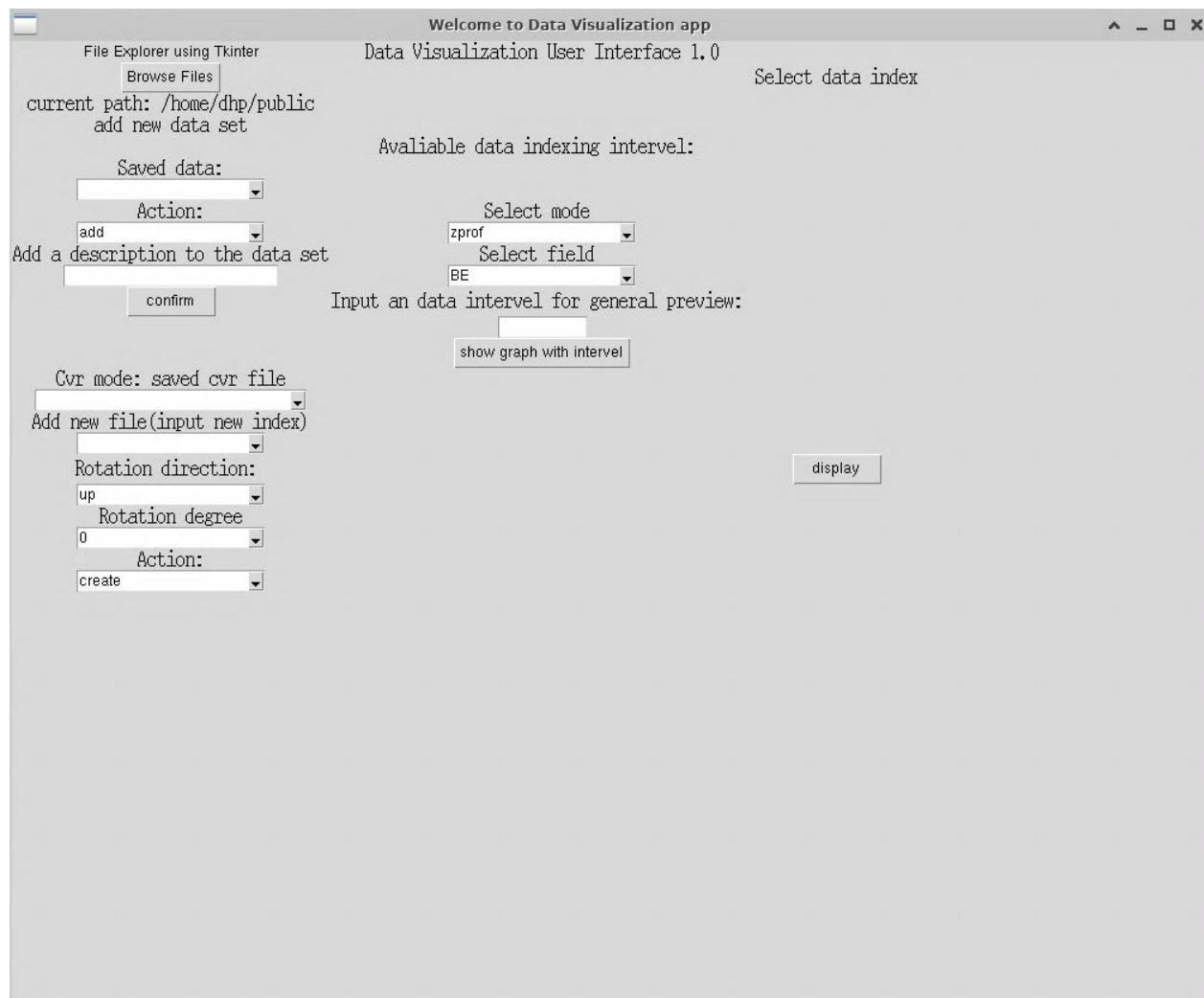
First, download the ee.sh and available.sh. Then put these shell files in the **same directory** as the user_interface.py or user_interface.ipynb.

Type following command in terminal to run:

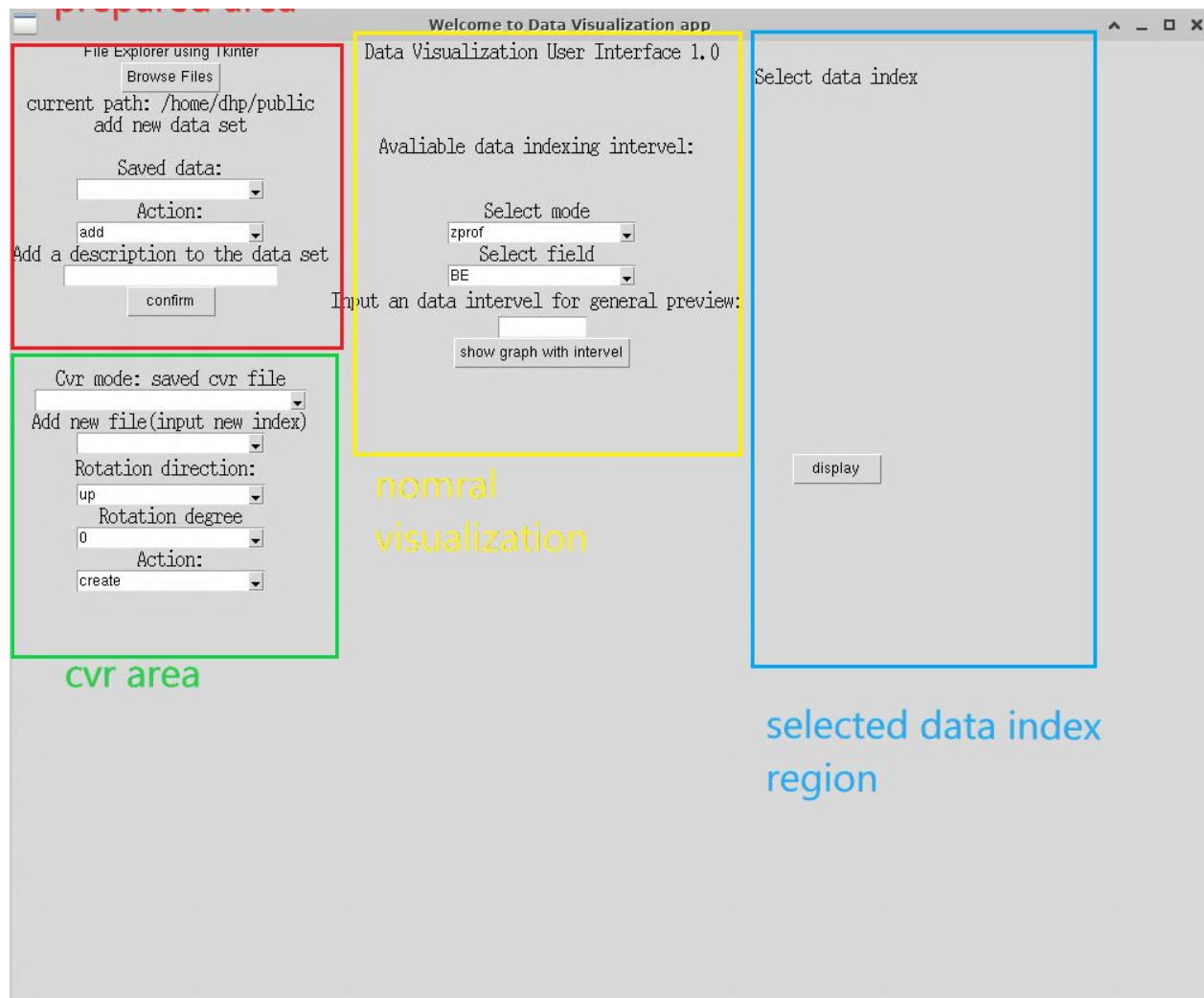
```
$module load python3
```

```
$ipython user_interface.py
```

This is how it look like when open the notebook:



There are four zones in this notebook:



Red one is prepared zone

Yellow one is normal visualization

Blue is selected data index region

Green is cvr area

The correct order for using it is

visualization for interval: Prepared zone-> normal visualization

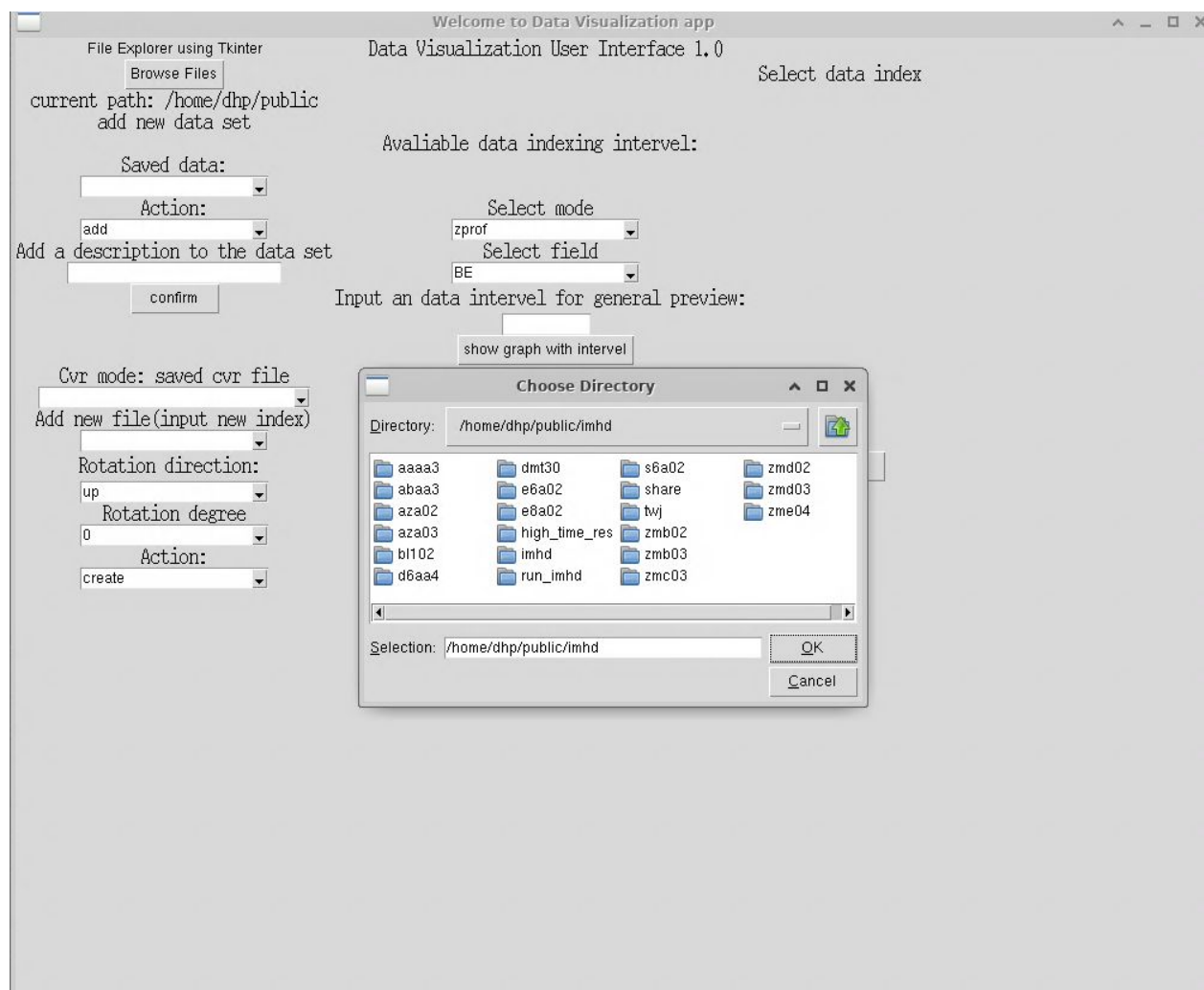
visualization for specific data: Prepared zone-> normal

visualization->selected data index

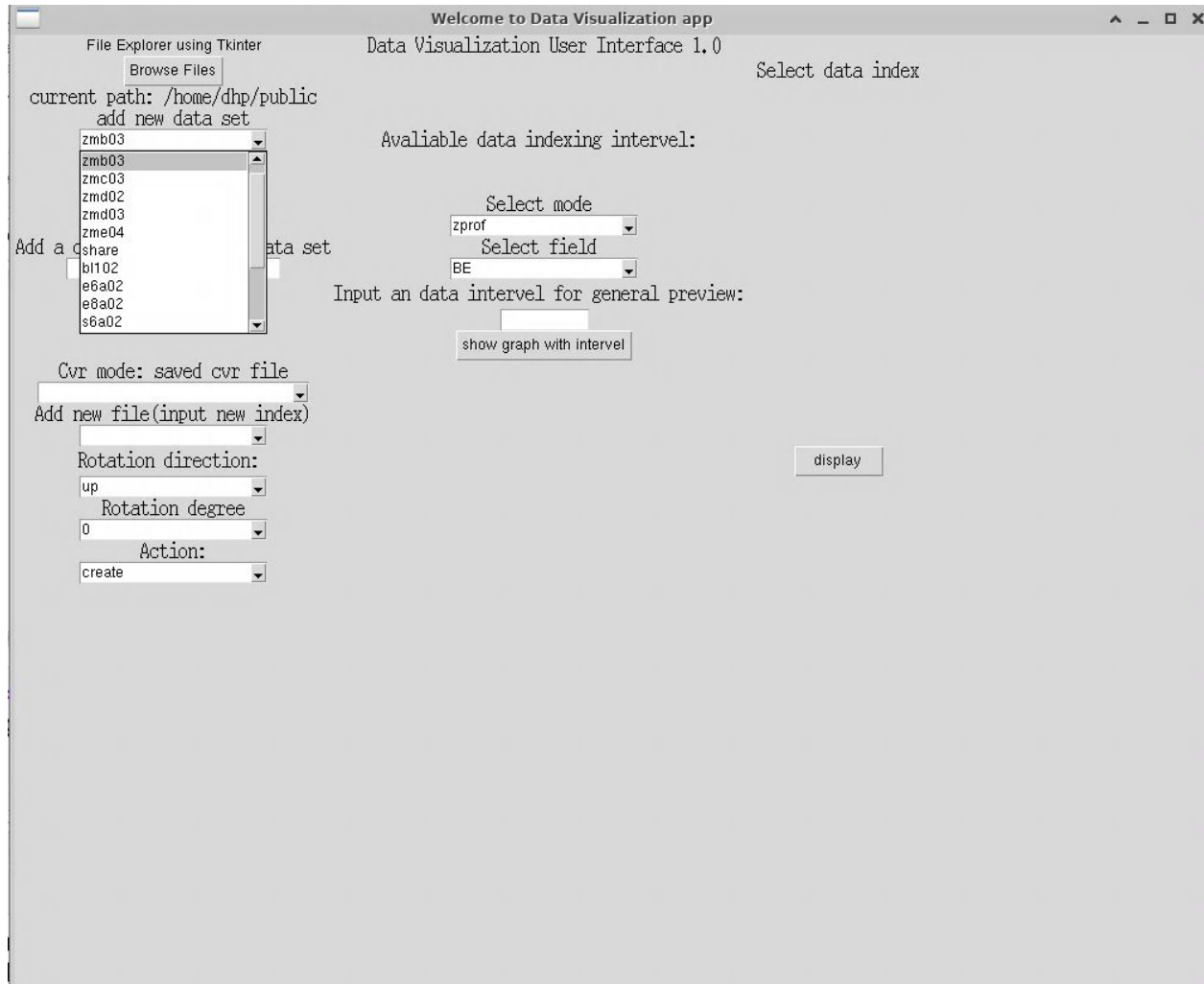
Cvr mode: Prepared zone-> normal visualization -> cvr area

For prepared zone:

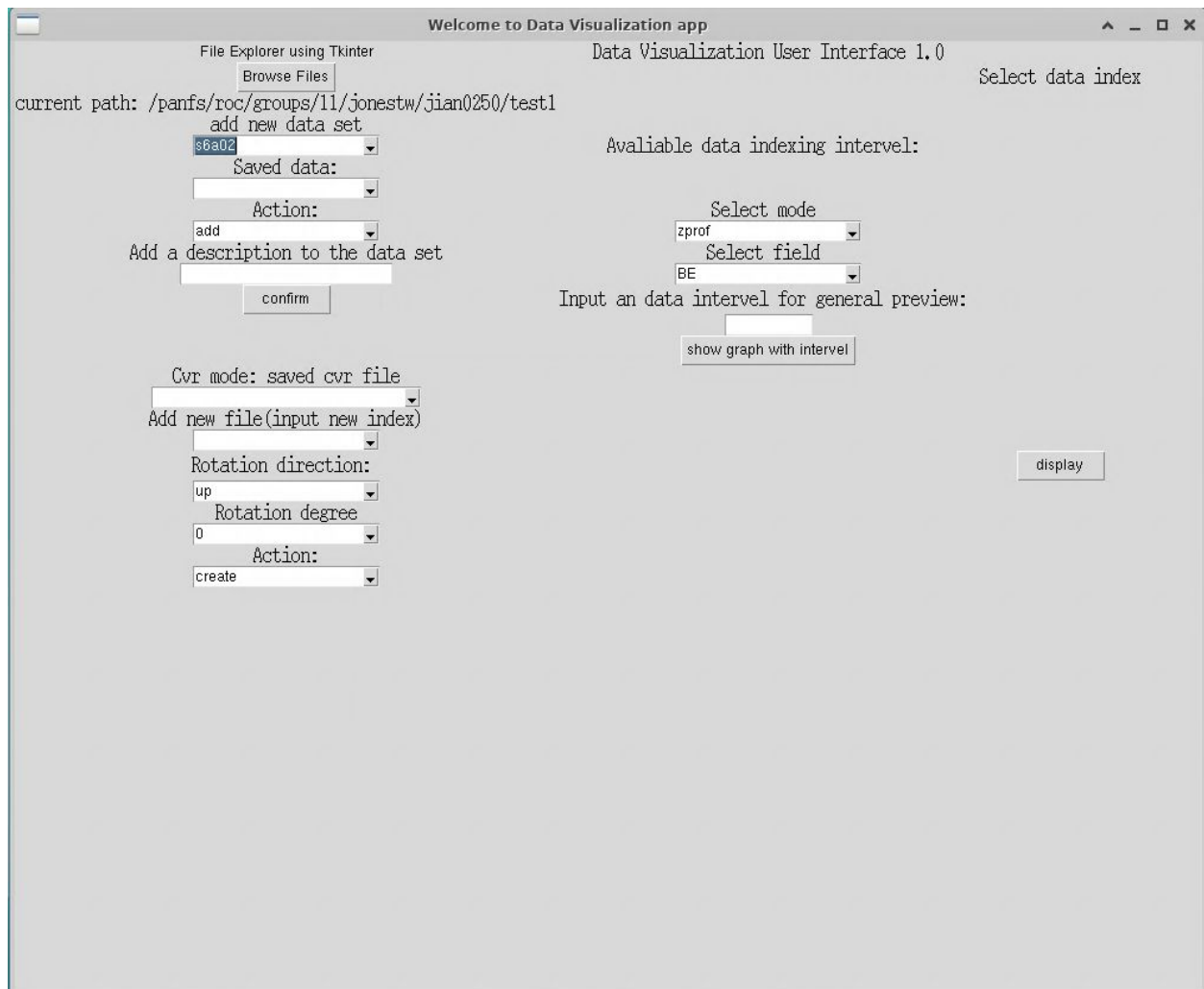
First you need to select a directory, which includes a list of data directory. For example, in this case, we choose /home/dhp/public/imhd. In imhd directory, it contains all the dataset with five characters. After choosing the directory, then click Ok.



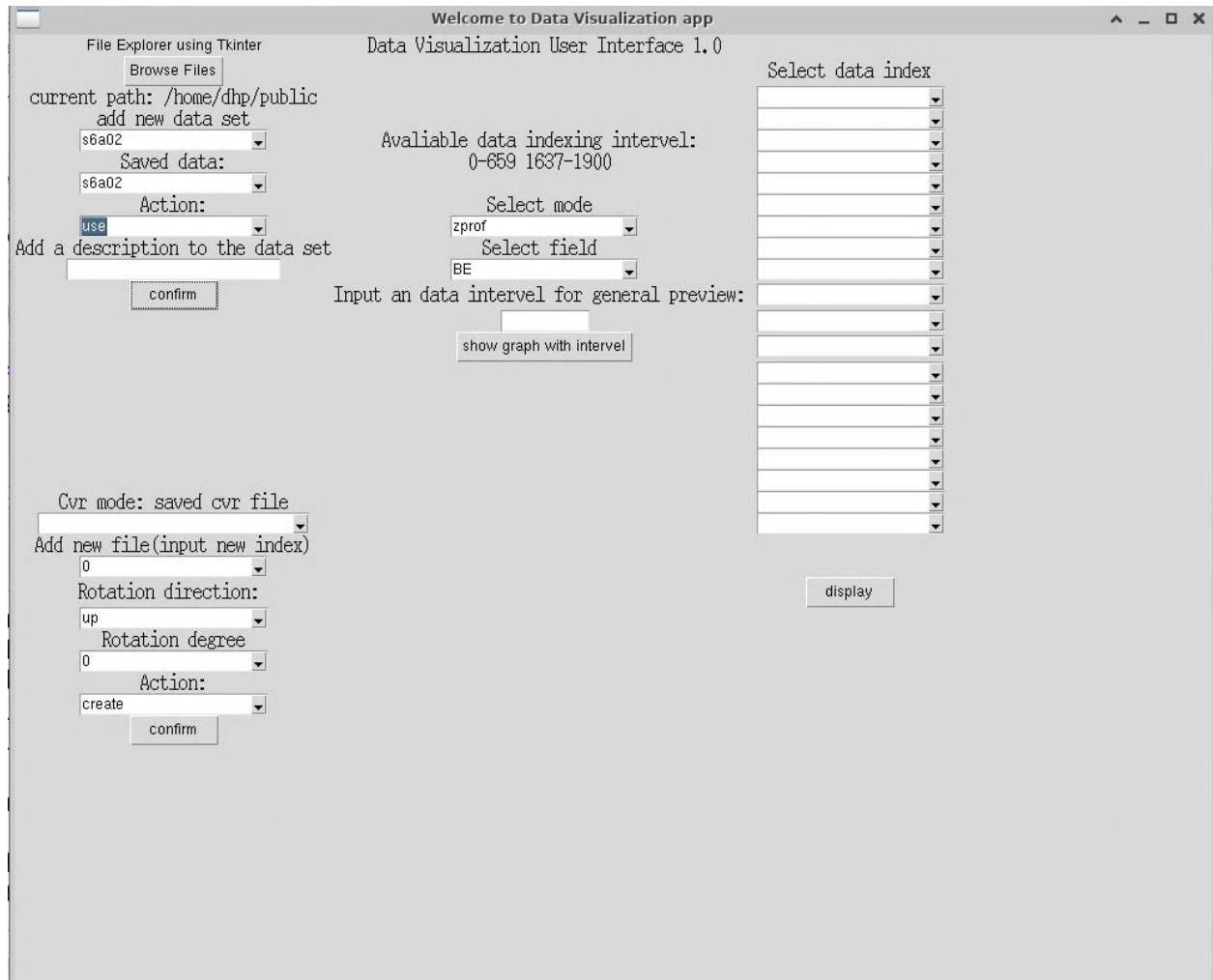
Then all the data is loaded into “add new data set”. In ComboBox, there is a list of options you can choose.



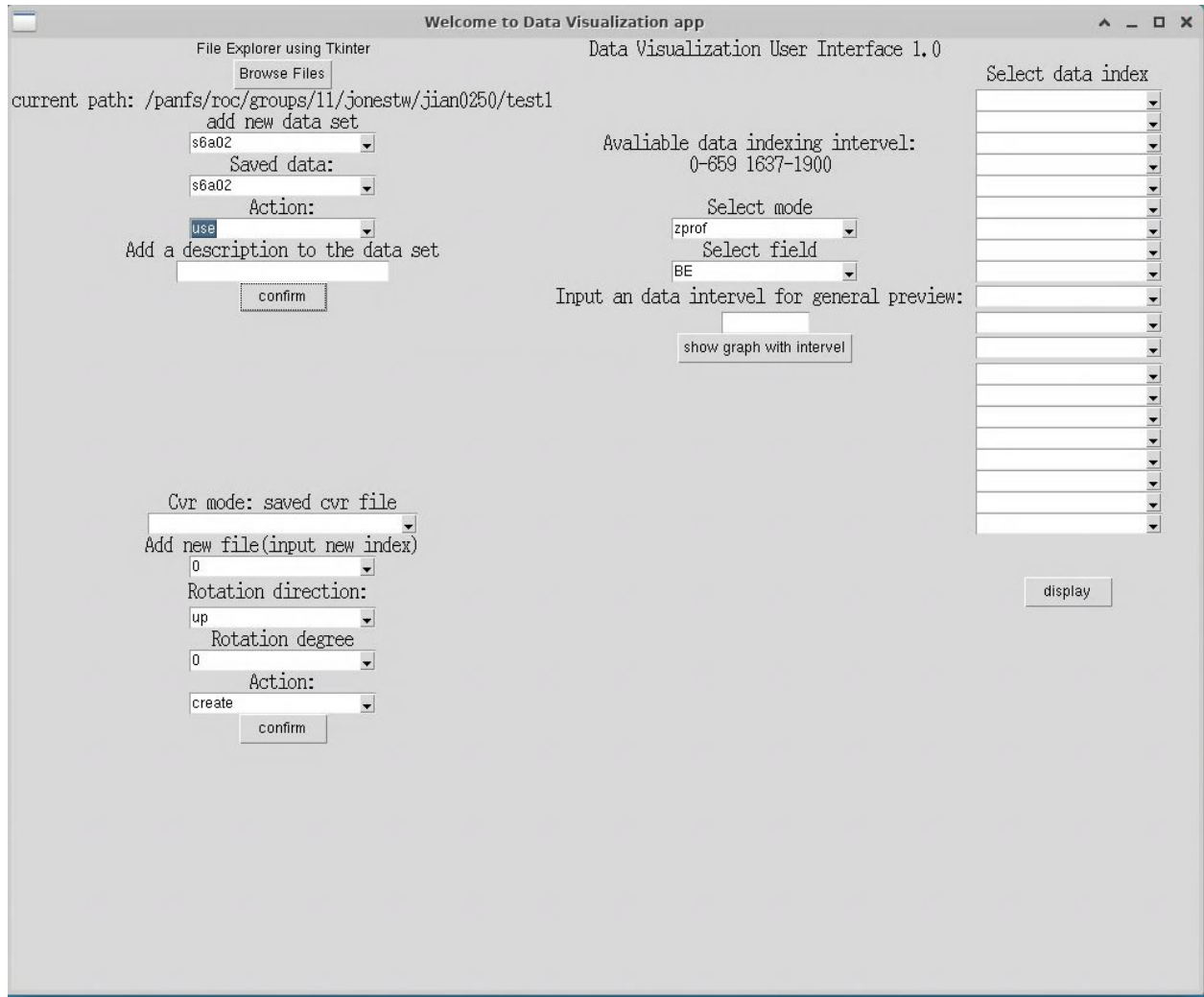
Then select one and click “add” in the action box and click confirm



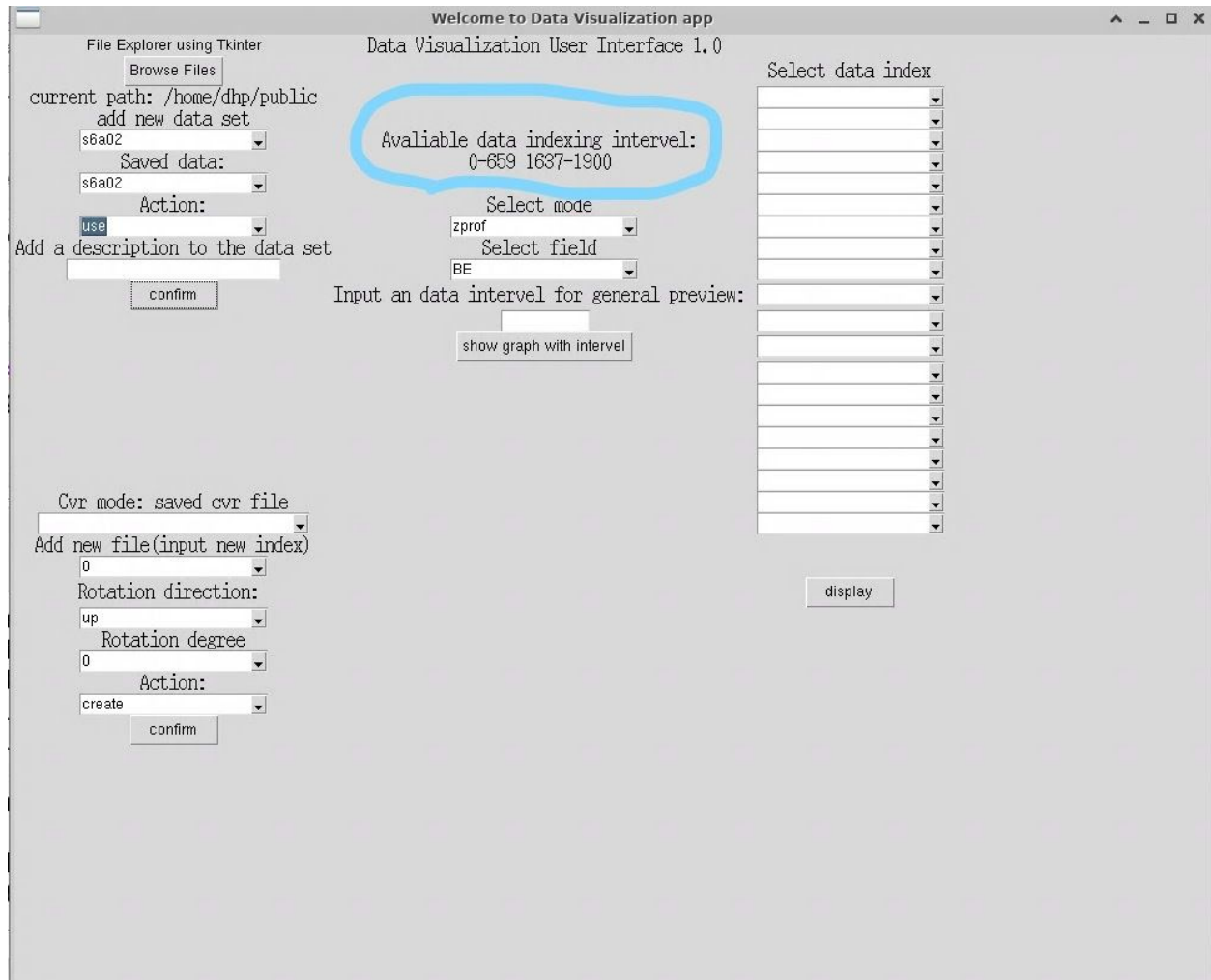
Then in the saved data box, s6a02 is shown. It will save here even if you open the program next time.



At this point, you may want to use this dataset. Select “s6a02” from saved data, then choose action “use”. This is what is look like after clicking “confirm”.



The available data indexing interval appear below the text. It means what data index is available from this dataset. In s6a02, you can only choose data index 0-659 and 1637-1900, or you will get a segmentation fault.



**The next step is select mode and field:
There are a few options which are fixed.**

File Explorer using Tkinter

Browse Files

current path: /home/dhp/public

add new data set

s6a02

Saved data:

s6a02

Action:

use

Add a description to the data set

confirm

Input an data

zprof

zprof

xprof

yprof

dist

spc3v

view2d

xstrip

ystrip

zstrip

cvr

al preview:

display

Cvr mode: saved cvr file

Add new file(input new index)

0

Rotation direction:

up

Rotation degree

0

Action:

create

confirm

Welcome to Data Visualization app

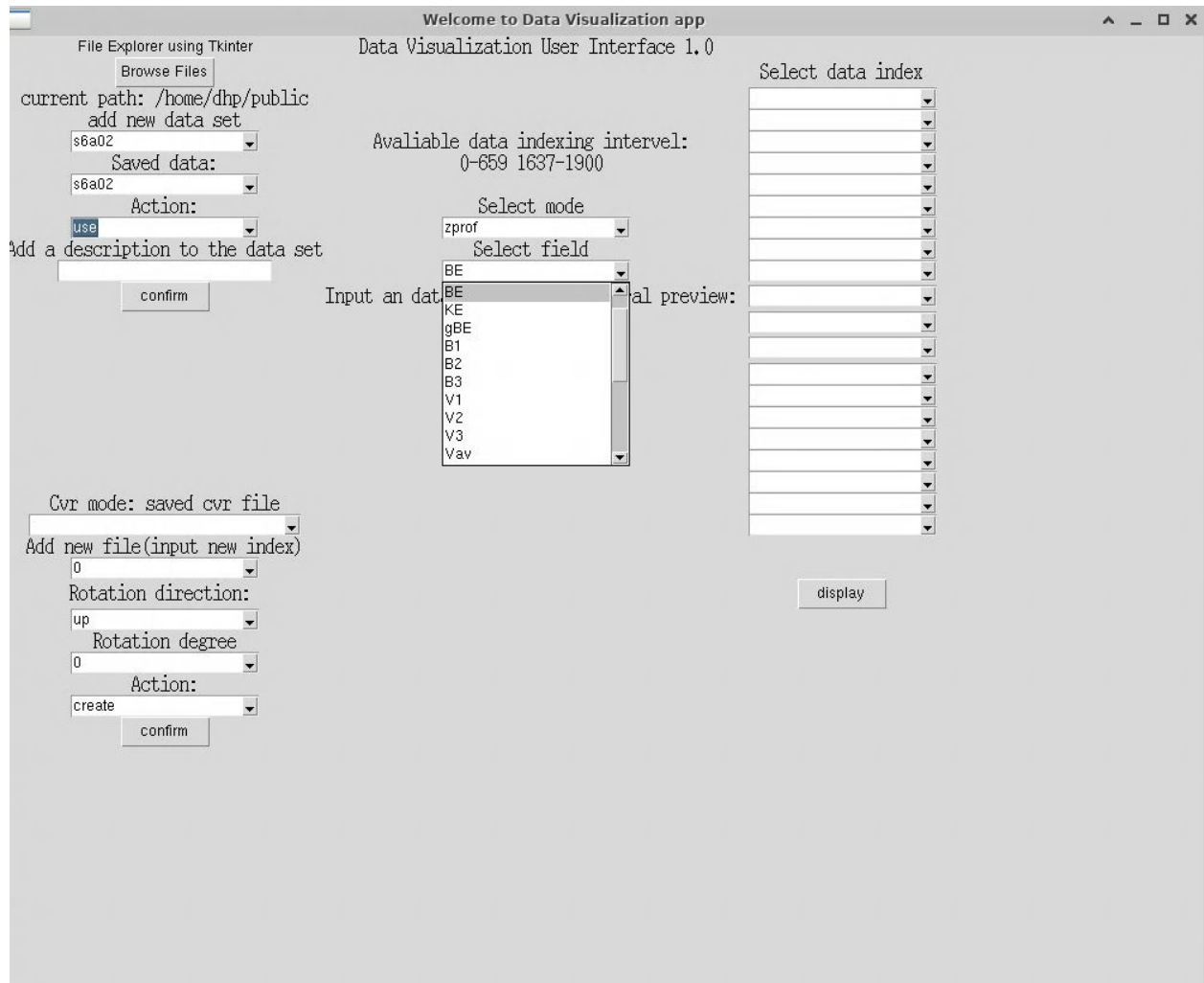
Data Visualization User Interface 1.0

Select data index

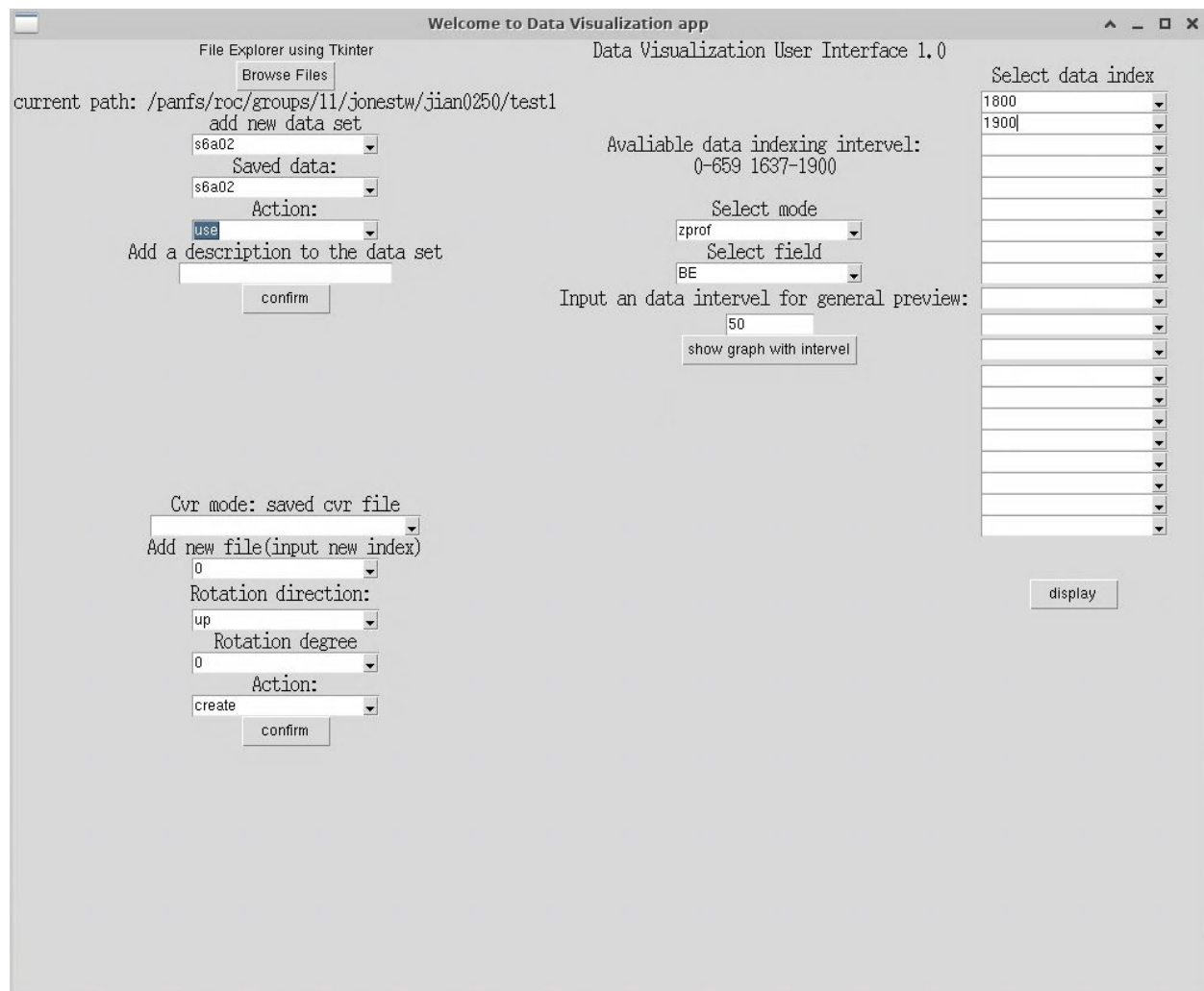
0-659 1637-1900

Avaliable data indexing interval:

0-659 1637-1900

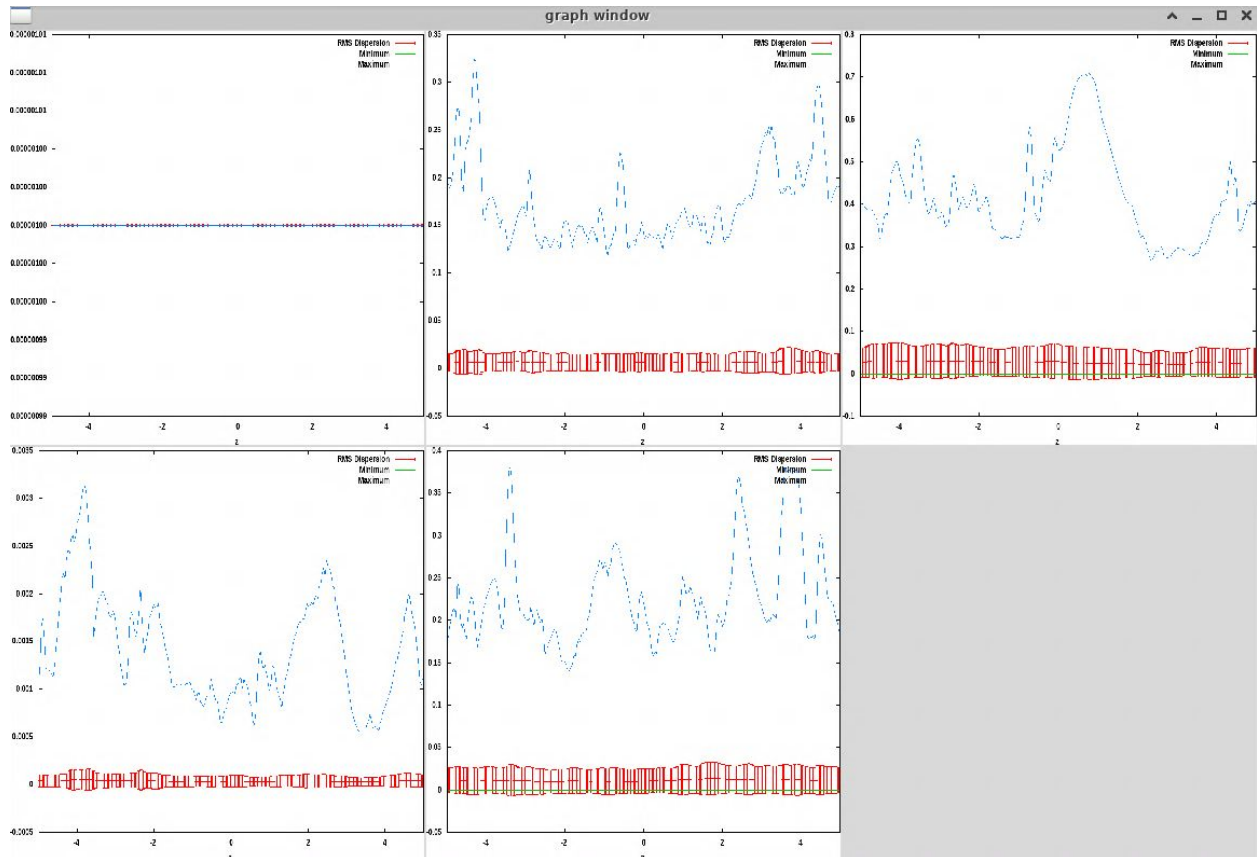


After selecting the mode and field, this is what it looks like:



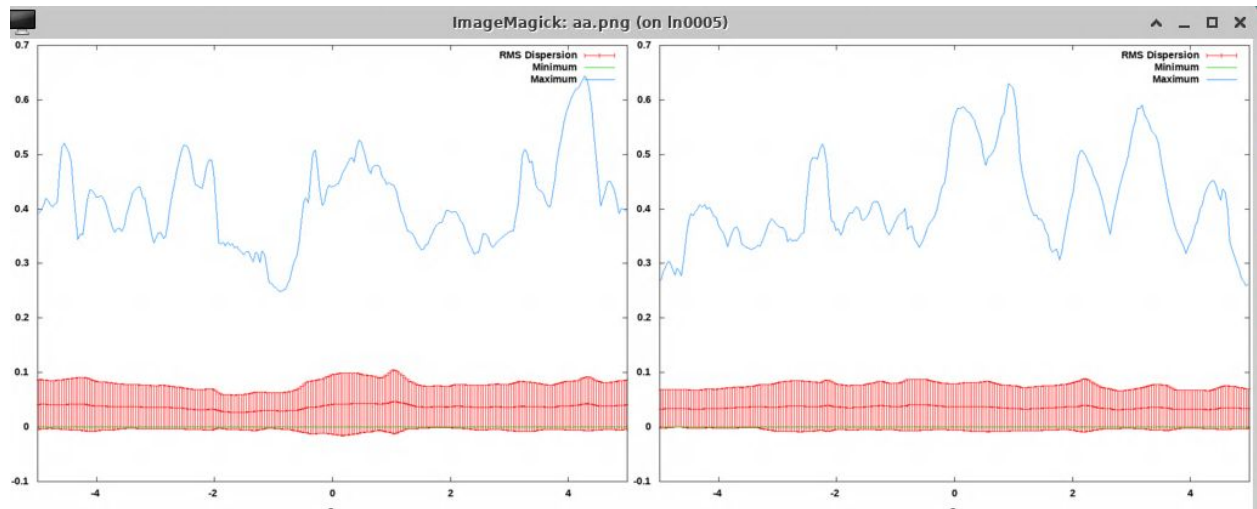
You can choose “interval mode” or “select data index mode”. For interval mode, simply input an interval number in the text box. It will sample over all the data interval by this value. In this case (s6a02), if we input a interval value of 300, it will demonstrate figures of 0,300,600,1800

Here is an example:



For the selected mode, input a number in the interval or choose from the combo box. You can choose up to 20 images at the same time. Then the figures will be displayed.

Here is an example: choose 1800 and 1900:



Then If you want start with CVR mode:

Three parameter will need:

- 1.Input new index, the data index you want manipulate**
- 2.Rotation direction, up, eye or horizontal**
- 3.Rotation degree, range from 0 to 360.**

Rotation degree affects the frame number. If you select a degree of 90, then there will be 4 frames. If selected 30, it will have 12 frames.

Welcome to Data Visualization app

File Explorer using Tkinter

current path: /panfs/roc/groups/11/jonestw/jian0250/test1

Browse Files

add new data set

s6a02

Saved data: s6a02

Action: use

Add a description to the data set

confirm

Available data indexing interval: 0-659 1637-1900

Select mode: zprof

Select field: BE

Input an data interval for general preview: 50

show graph with interval

Select data index

1800

1900

display

Cvr mode: saved cvr file

Add new file(input new index)

532

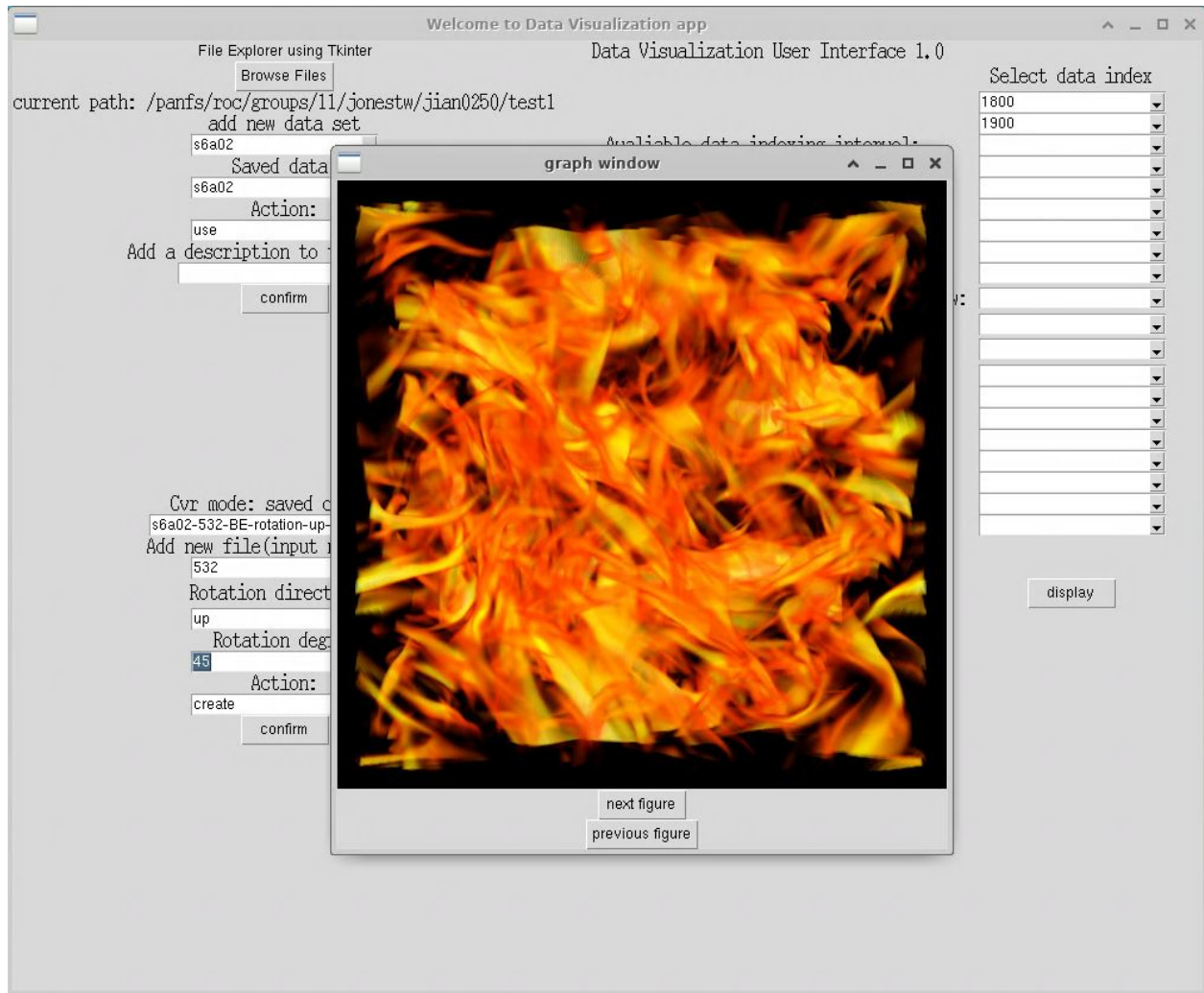
Rotation direction: up

Rotation degree: 45

Action: create

confirm

After filling three parameters, choose “create” and click “confirm”.



An extra window will appear, you can simply click the next figure or previous figure to rotate around 360 degrees. But it will stop if you reach the end of the figures or reach the first picture.