

jacoobi-data-visualization

June 12, 2018

```
In [62]: !ls
```

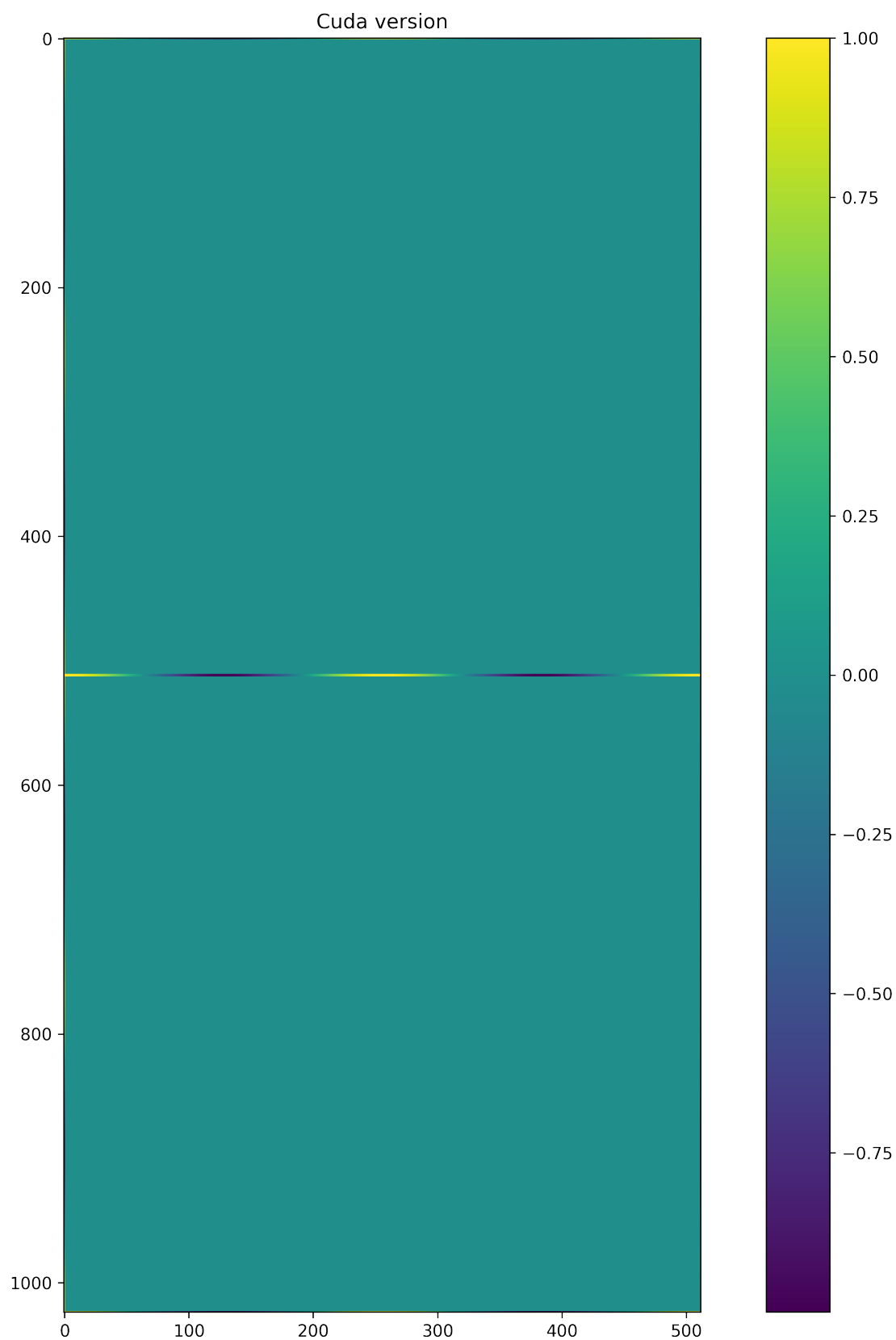
```
2-a.c          3-cuda.cu      cuda-32.csv    serial-32.csv  serial.out
2-b.cu         3-serial.cpp   cuda.csv      serial.csv     Untitled.ipynb
2-c.cu         a.out          cuda.csvdata  serial.csvdata
```

```
In [63]: import pandas as pd
import matplotlib.pyplot as plt
import numpy as np
%matplotlib inline
```

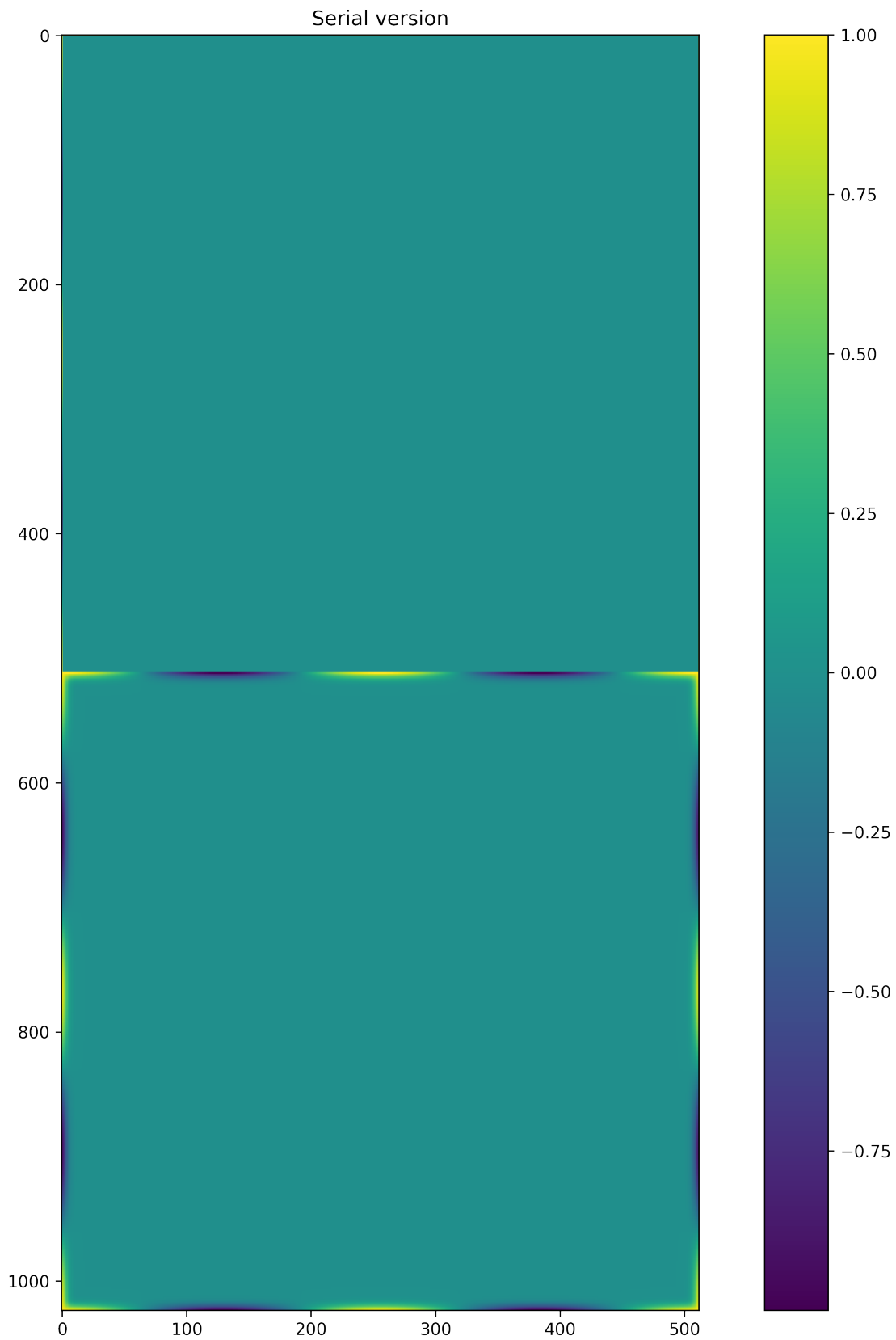
```
In [73]: df_cuda = pd.read_csv('cuda.csv', sep=';', header=None)
df_serial = pd.read_csv('serial.csv', sep=';', header=None)
```

0.0.1 The figures show the matrix after the initializaton in the upper part and after the iteration in the lower part.

```
In [77]: plt.figure(dpi=320, figsize=(14,14));
plt.title("Cuda version")
plt.imshow(df_cuda);
plt.colorbar();
```

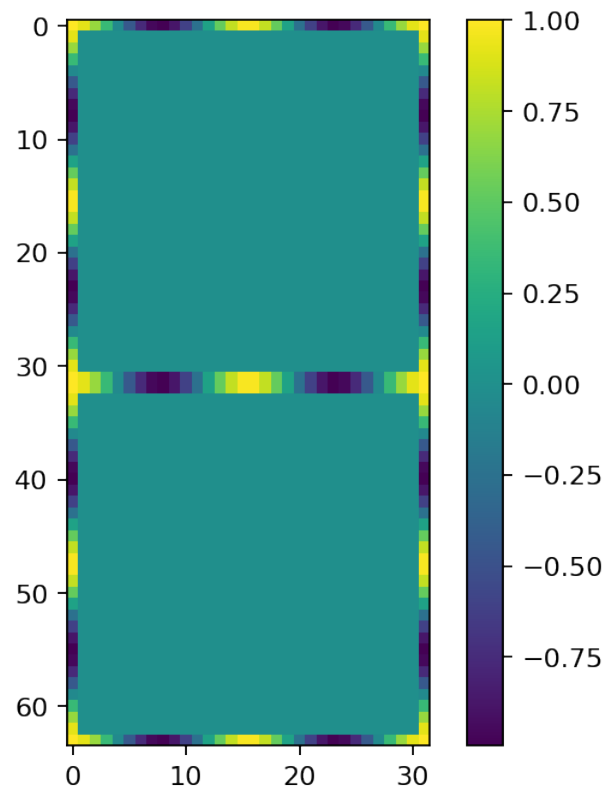


```
In [78]: plt.figure(dpi=320, figsize=(14,14));  
         plt.title("Serial version")  
         plt.imshow(df_serial);  
         plt.colorbar();
```

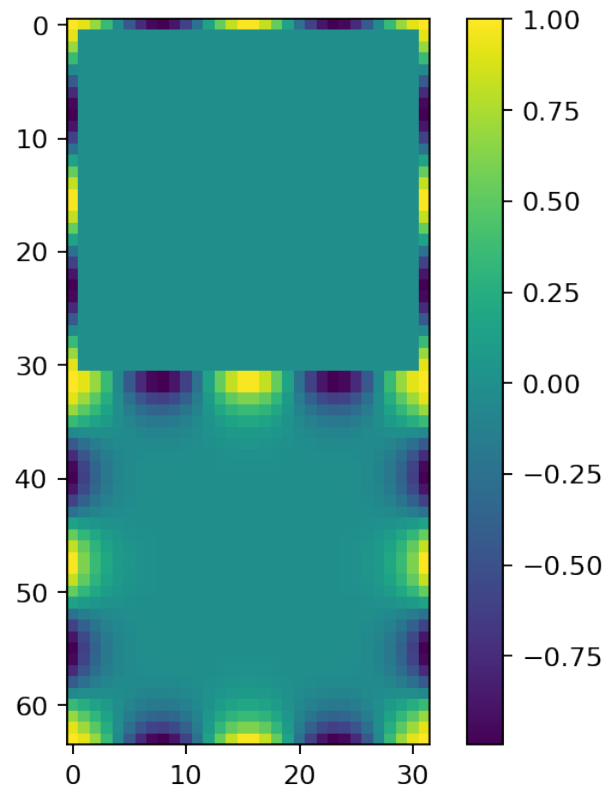


```
In [67]: df_cuda = pd.read_csv('cuda-32.csv', sep=';', header=None)
         df_serial = pd.read_csv('serial-32.csv', sep=';', header=None)
```

```
In [68]: plt.figure(dpi=160, figsize=(5,5));
         plt.imshow(df_cuda);
         plt.colorbar();
```



```
In [69]: plt.figure(dpi=160, figsize=(5,5));
         plt.imshow(df_serial);
         plt.colorbar();
```



0.0.2 Evidently the initialization step is working on the cuda version, the jacobi iteration however is not.