

# Project

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EE 774

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Figure 1 shows the User Interface to generate plots.

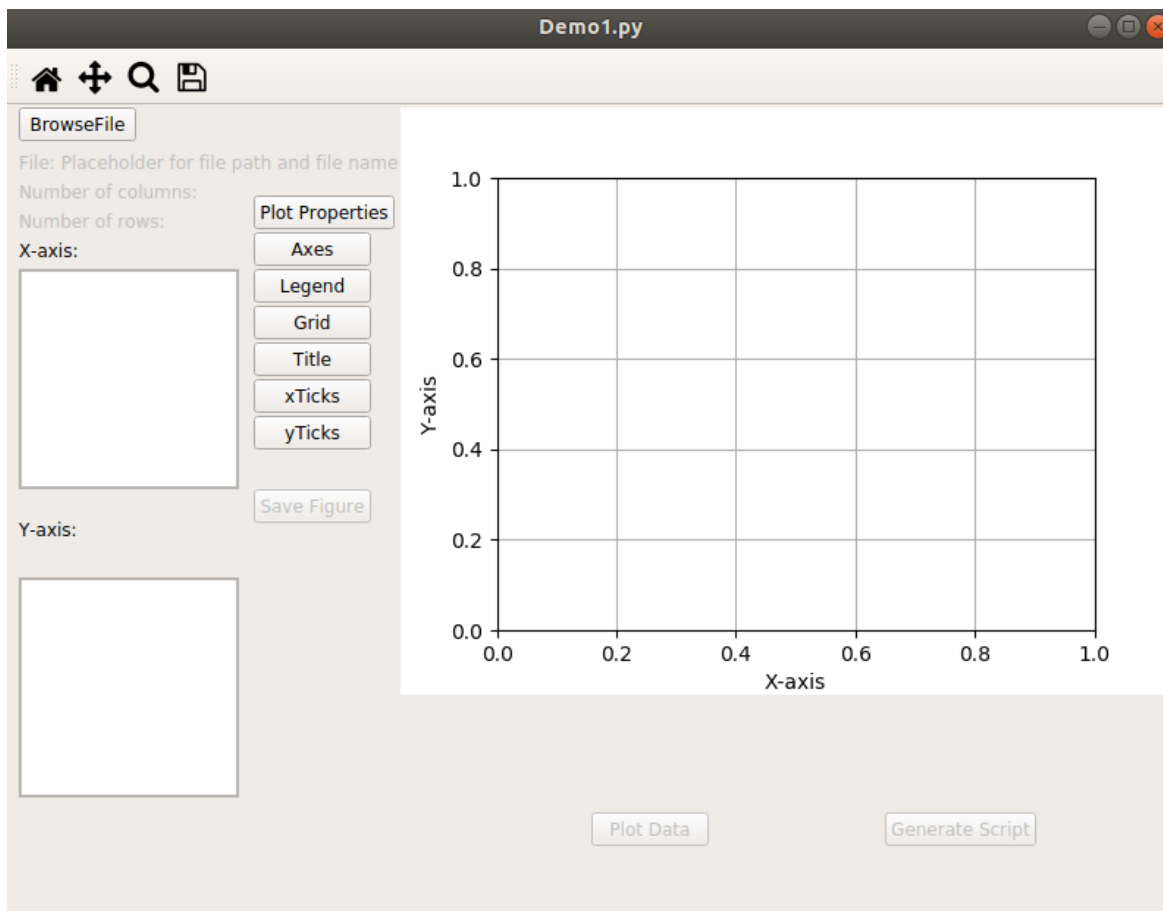


Figure 1: User Interface to plot data

Figure 2 shows plot generated using the user interface. Multiple plots can be plotted by ticking multiple items(columns in data file), in Y-axis listbox. Only single item can be selected from X-axis listbox.(default column name: x+ColumnNumber)

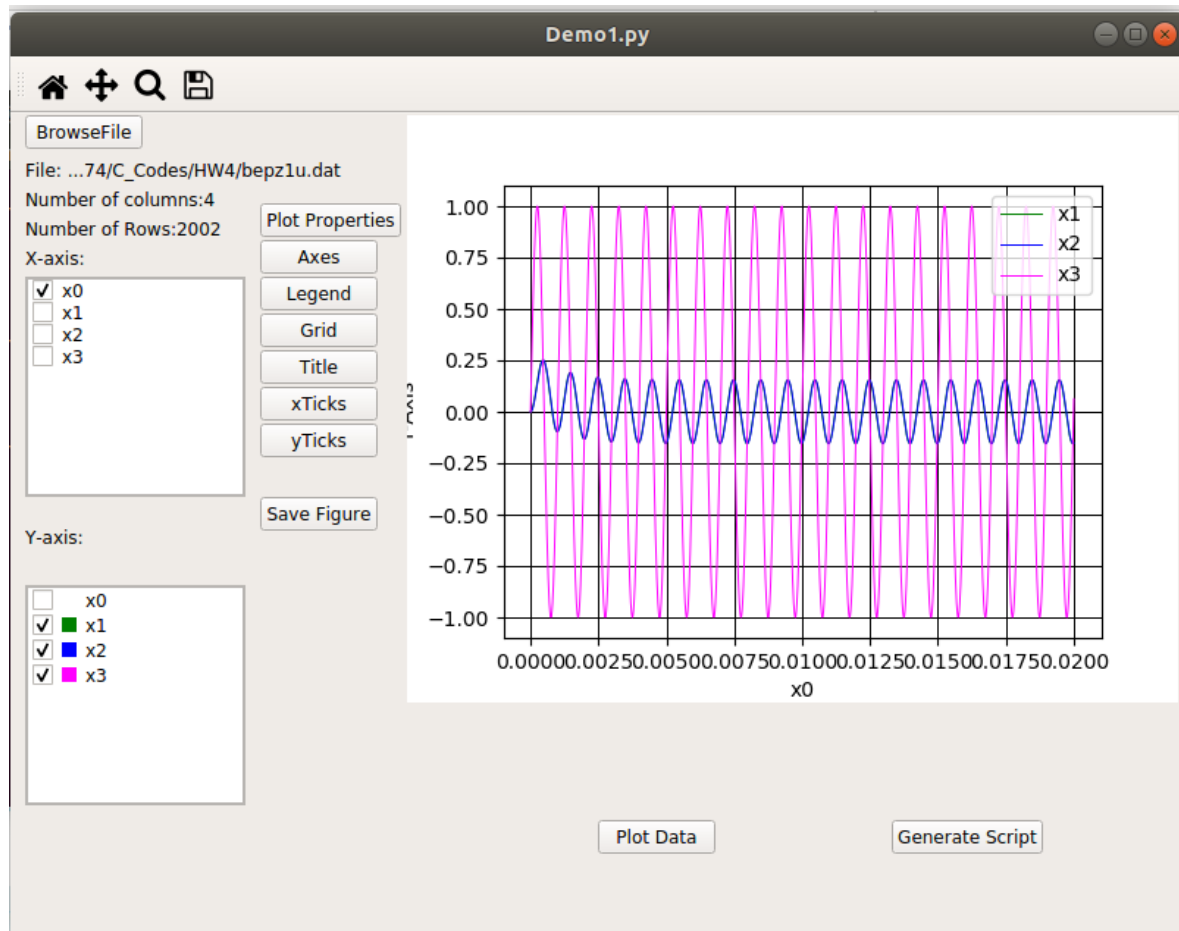


Figure 2: Plot generated using user interface

Figure 3 shows options to change plotted line properties - linestyle, drawstyle, linewidth, linecolor and marker properties - marker, markersize, edgecolor, facecolor.

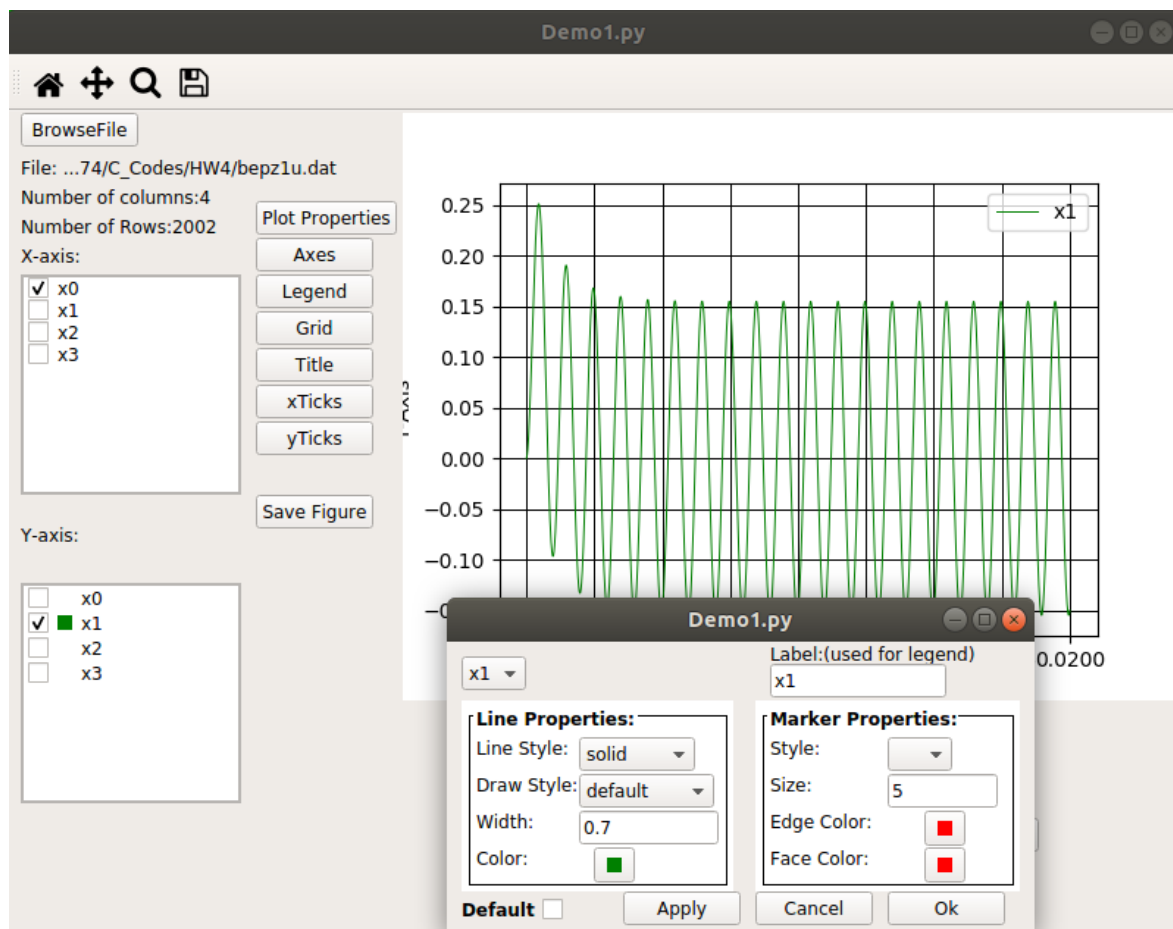


Figure 3: Popup window to change line, marker properties

Figure 4 shows options to change axes properties - scale, label, limits.

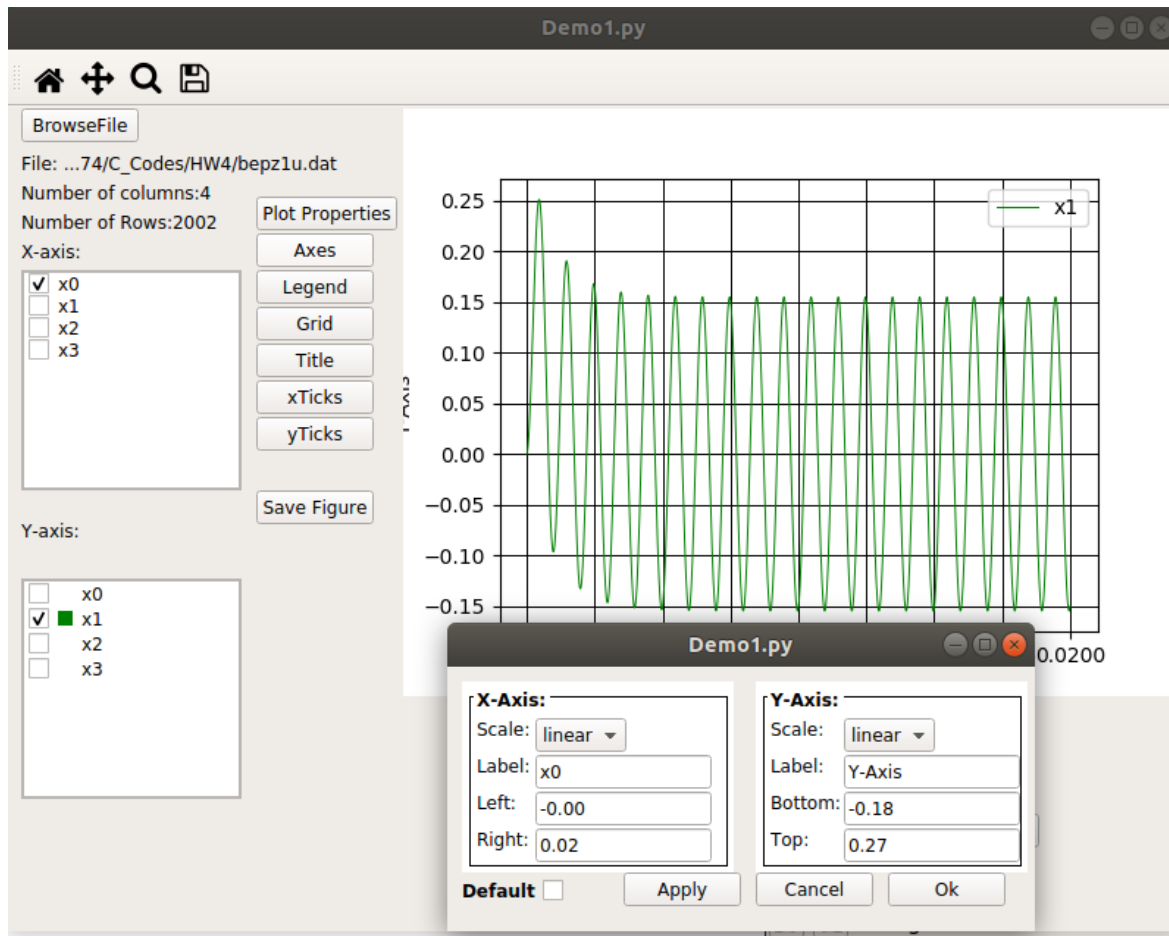


Figure 4: Popup window to change axes properties

Figure 5 shows options to change legend properties - location, font size, title, etc.

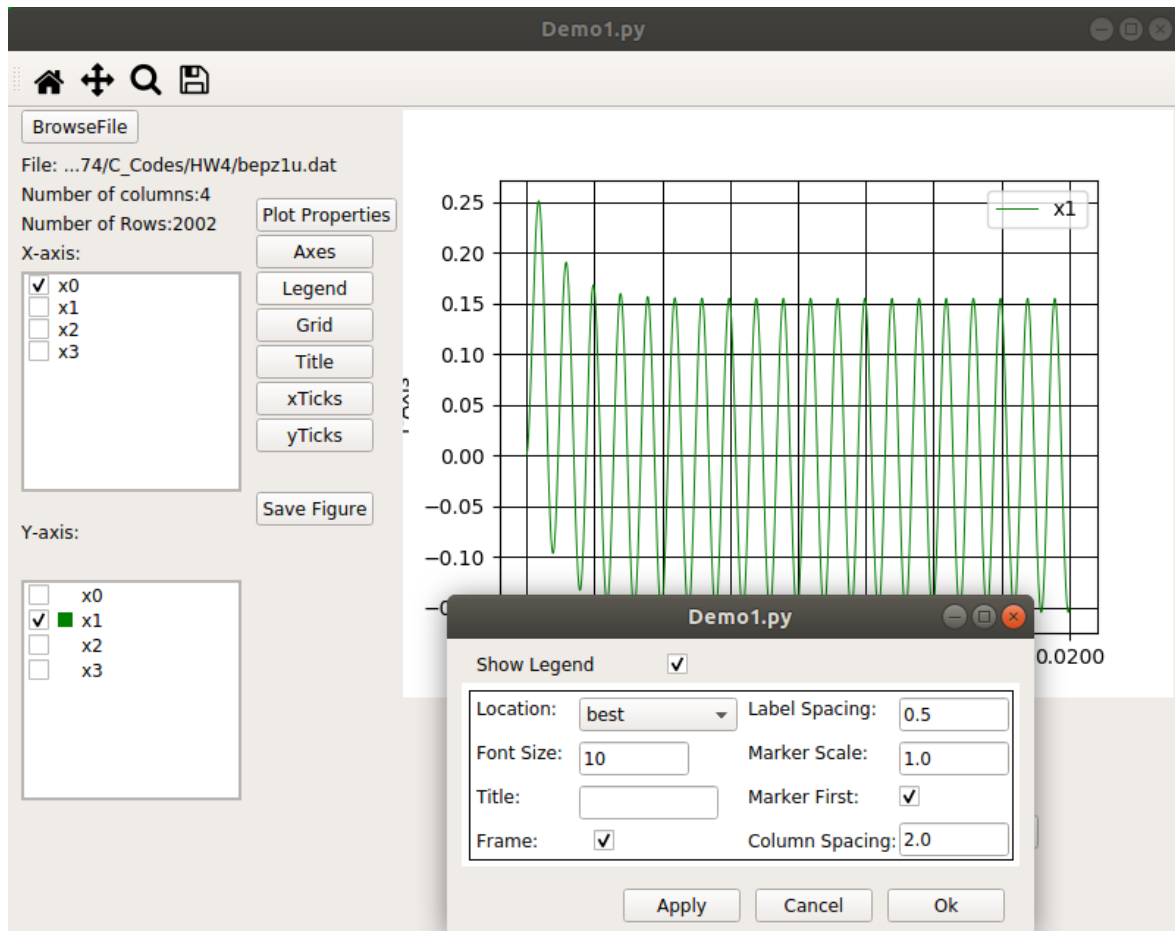


Figure 5: Popup window to change legend properties

Figure 6 shows options to change grid properties - linestyle, color, etc.

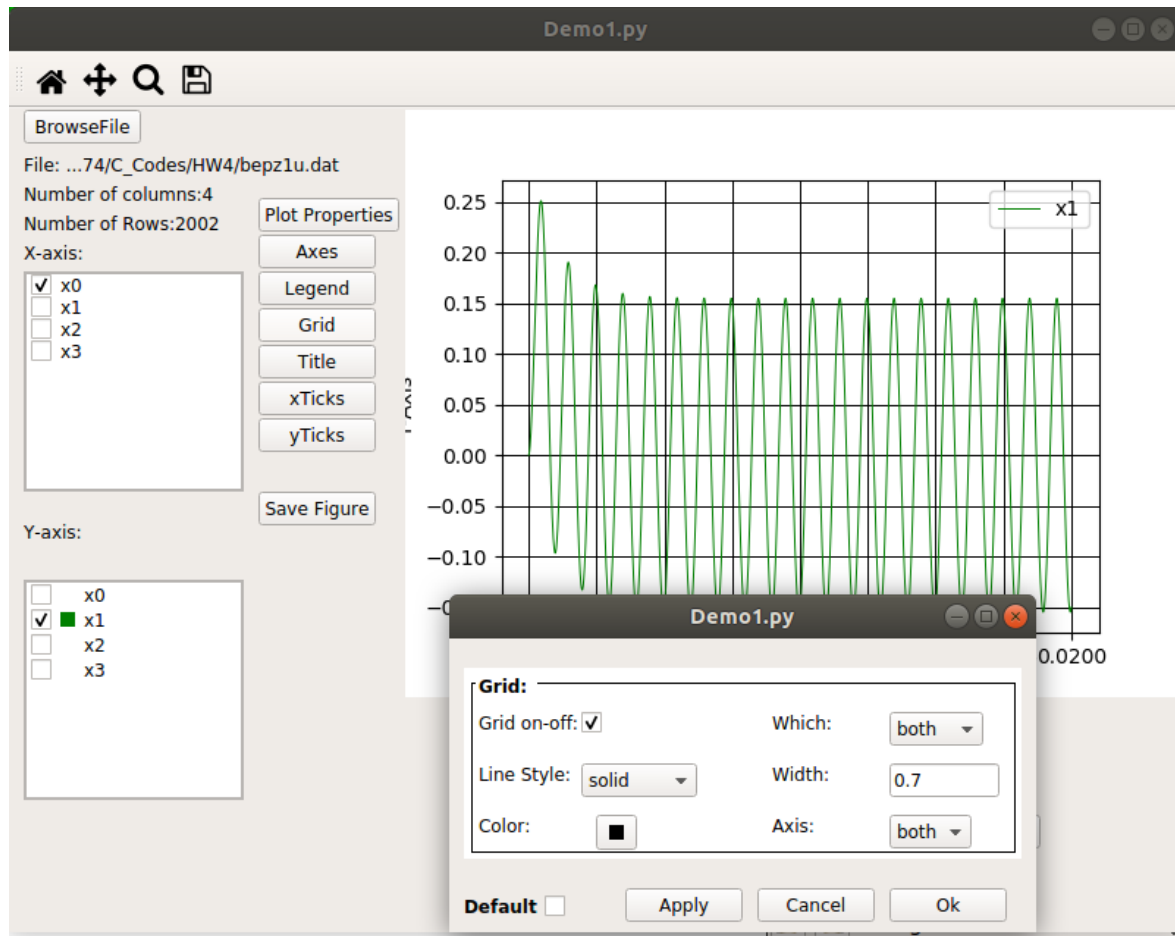


Figure 6: Popup window to change grid properties

Figure 7 shows options to change title properties.

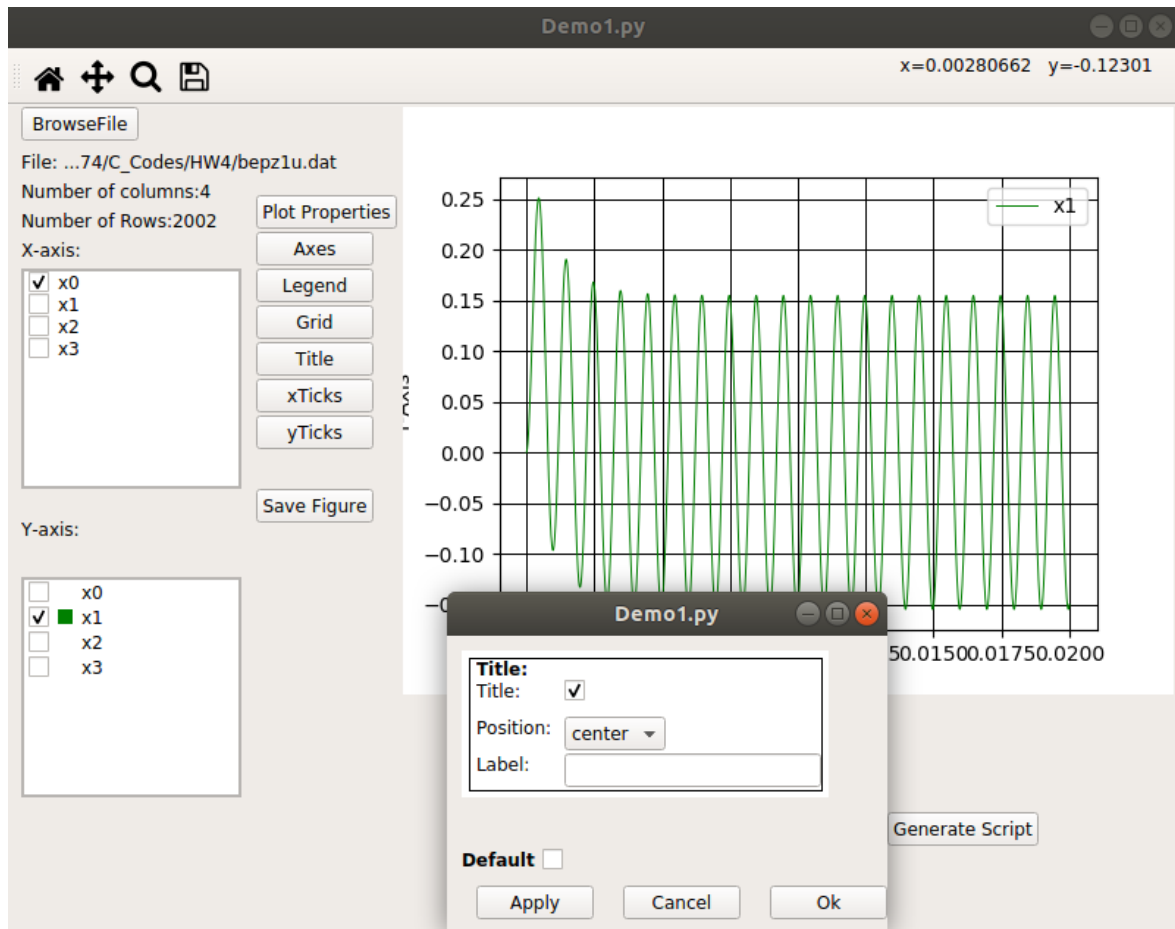


Figure 7: Popup window to change title properties

Figure 8 shows options to xticks.

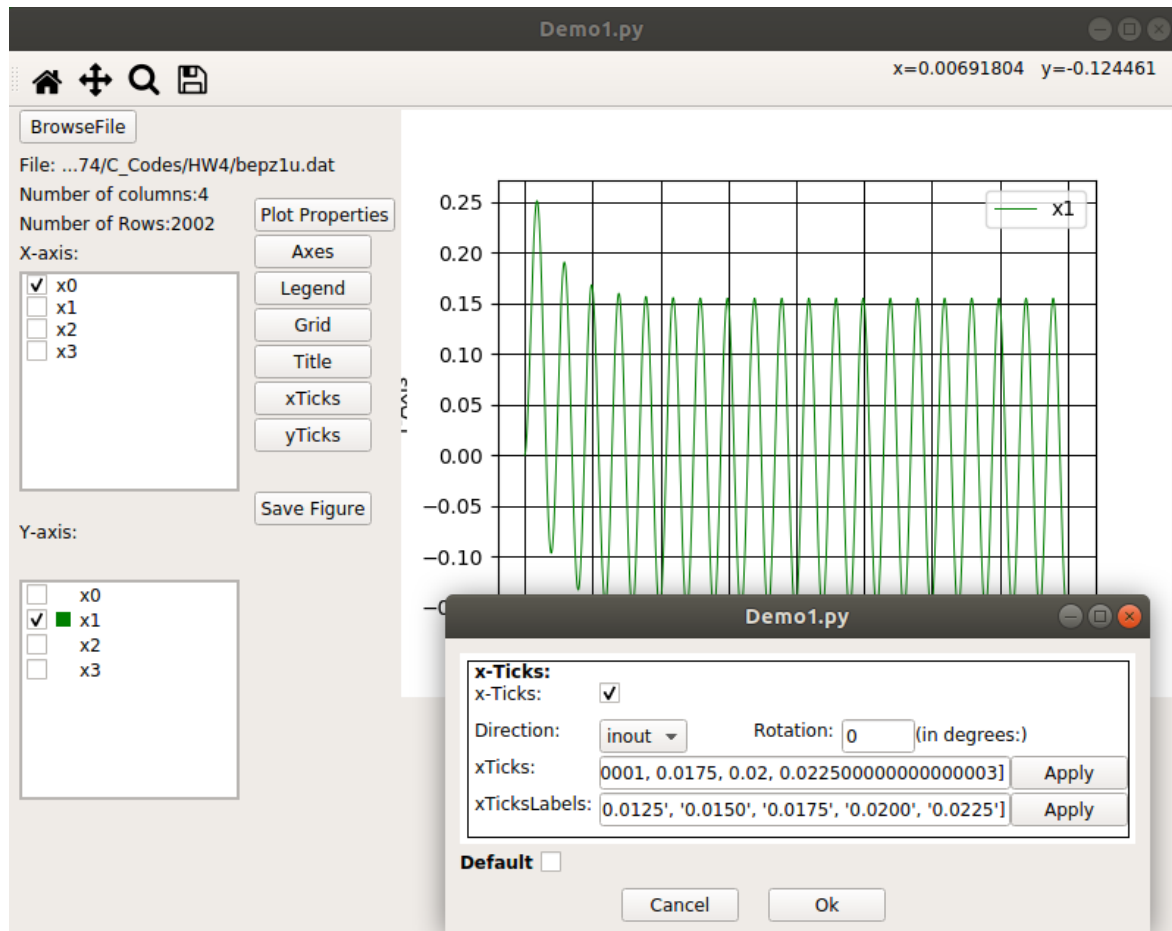


Figure 8: Popup window to change title properties



Figure 9 shows options to yticks.

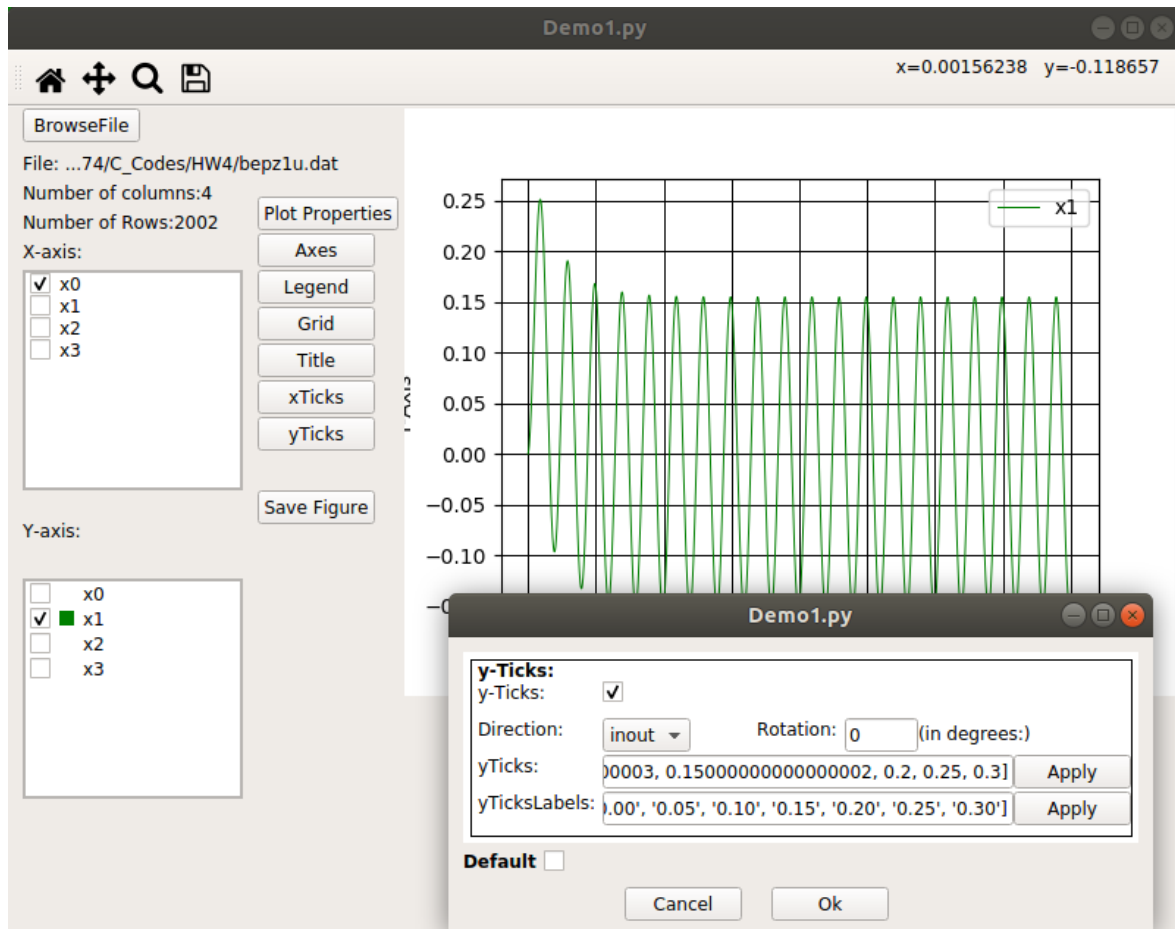
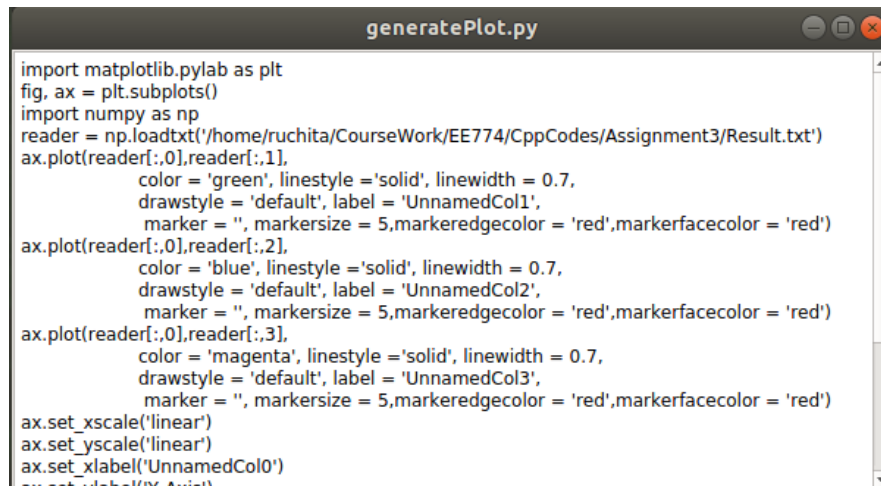


Figure 9: Popup window to change title properties

Figure 10 shows generated python script to generate same plot.



```
import matplotlib.pyplot as plt
fig, ax = plt.subplots()
import numpy as np
reader = np.loadtxt('/home/ruchita/CourseWork/EE774/CppCodes/Assignment3/Result.txt')
ax.plot(reader[:,0],reader[:,1],
        color = 'green', linestyle='solid', linewidth = 0.7,
        drawstyle = 'default', label = 'UnnamedCol1',
        marker = "", markersize = 5,markeredgecolor = 'red',markerfacecolor = 'red')
ax.plot(reader[:,0],reader[:,2],
        color = 'blue', linestyle='solid', linewidth = 0.7,
        drawstyle = 'default', label = 'UnnamedCol2',
        marker = "", markersize = 5,markeredgecolor = 'red',markerfacecolor = 'red')
ax.plot(reader[:,0],reader[:,3],
        color = 'magenta', linestyle='solid', linewidth = 0.7,
        drawstyle = 'default', label = 'UnnamedCol3',
        marker = "", markersize = 5,markeredgecolor = 'red',markerfacecolor = 'red')
ax.set_xscale('linear')
ax.set_yscale('linear')
ax.set_xlabel('UnnamedCol0')
ax.set_ylabel('UnnamedCol1')
```

Figure 10: Popup window for generate python script