

Issue #7869

Bug: Take text objects into account in legend auto positioning

<https://github.com/matplotlib/matplotlib/issues/7869>

Branch with Fix: https://github.com/RiazCharania/matplotlib/commits/issue_7869

System Testing:

For this phase, all of the system tests pass. The build is successful.

Acceptance Testing

Prerequisite Steps

1. Download and install matplotlib using the following commands
 - a. `python -m pip install -U pip`
 - b. `python -m pip install -U matplotlib`

Acceptance Test 1:

1. Download `Issue_7869_Acceptance_Test.py`.
 - a. There are three test cases included in the file (1 test per window)
 - i. Test legend doesn't show errors with no text
 - ii. Test legend doesn't overlap with one text
 - iii. Test legend doesn't overlap with two texts
2. In terminal, run the Python file
3. Verify that
 - a. In the window titled, No Text, verify that a graph with a line and legend are shown, with no errors. (Figure 1)
 - b. In the window titled, One Text, verify the graph is shown with the legend, line and text and that the legend has been moved to a different location to not overlap with the text. (Figure 2)
 - c. In the window titled, Two Texts, verify that the graph is shown with the legend, line and texts and that the legend has been moved to a different location to not overlap with either of the texts. (Figure 3)

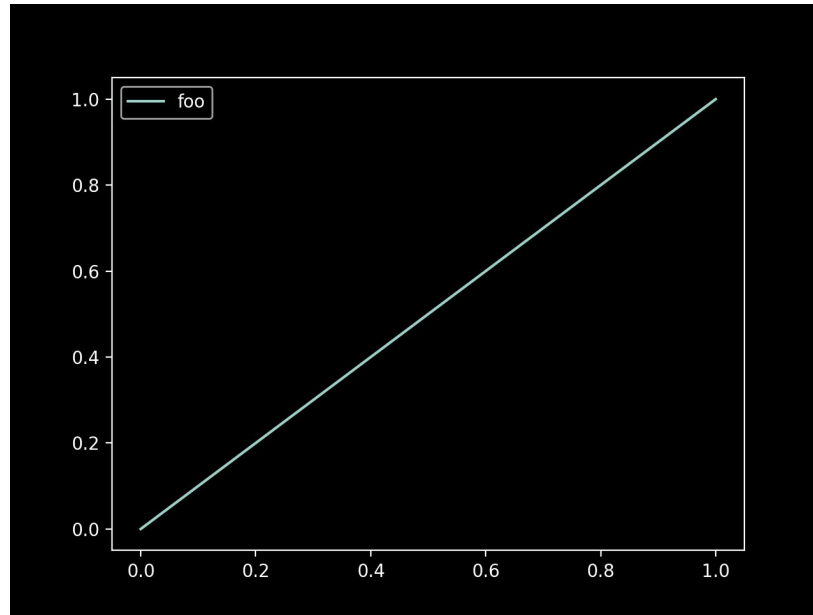


Figure 1

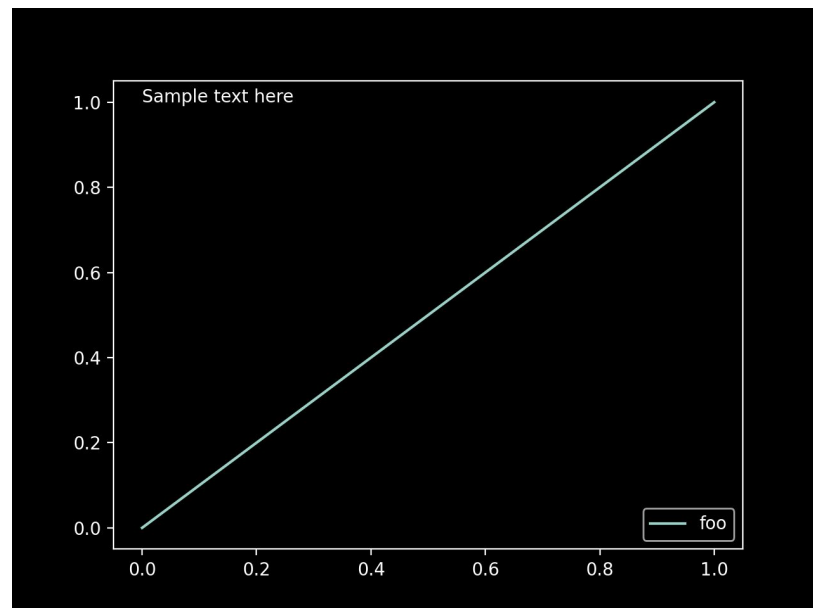


Figure 2

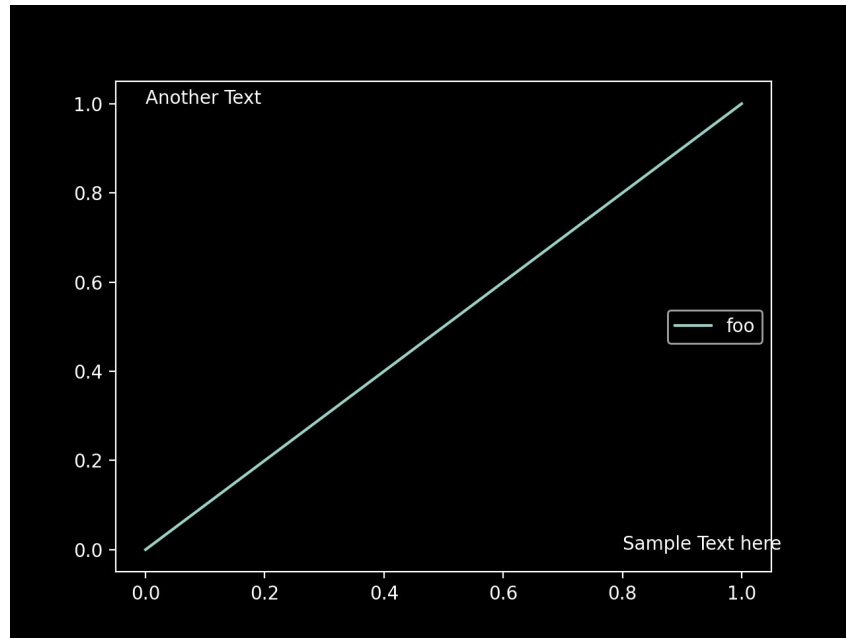


Figure 3