

How do I position subplots in MATLAB?

I have problem to set the position of subplots. I'm using subplot inside a loop. But when I try to make special position to the subplots it doesn't work. This is my code:

```
h=subplot(2,2,3);
set(h,'position',[0.15 0.15 0.4 0.4]);
plot(d3,S3,'*','Color',colors(i,:));
```

I tried different methods but can't see the third subplot, and sometimes the plot shows only one iteration.

How can I fix this?

matlab loops subplot

edited May 27 '13 at 13:24



HebeleHododo

3,191 1 22 36

asked May 26 '13 at 21:51



hola

47 1 5 10

3 Answers

This create 3 subplots. Position is [left bottom width height]). I usually try to make sure that left + width < 1 and that bottom + height < 1 (for the first subplot).

```
figure
set(subplot(3,1,1), 'Position', [0.05, 0.69, 0.92, 0.27])
set(subplot(3,1,2), 'Position', [0.05, 0.37, 0.92, 0.27])
set(subplot(3,1,3), 'Position', [0.05, 0.05, 0.92, 0.27])
```

This works well if you only have 1 column of subplot. For two columns of subplot is use this :

```
figure
subplot(4,2,1)
plot(...)
set(gca, 'OuterPosition', [0, 0.76, 0.49, 0.23])
subplot(4,2,2)
plot(...)
set(gca, 'OuterPosition', [0.48, 0.76, 0.49, 0.23])
subplot(4,2,3)
...
```

answered May 27 '13 at 13:14



m_power

1,780 1 14 39

Thank you so much – hola May 27 '13 at 18:54

@m_power Ca you tell me how you are calculating the values of the set parameter. I went through the documentation in matlab but could not get the hang of it – roni Sep 17 '13 at 14:31

It is probably happening because of conflicting positions values between the subplot tile number (i.e. subplot(2,2,3) etc) that has its own default position, and the position you entered.

So instead use subplot just with the position info as follows:

```
subplot('position', [0.15 0.15 0.4 0.4])
plot(d3,S3,'*','Color',colors(i,:));
subplot('position', [... ..])
plot(...);
```

see also [this SO discussion...](#)

edited May 23 at 11:58



Community ♦

1 1

answered May 26 '13 at 22:14



bla

20k 9 54 93

I tried that, but get same problem – [hola](#) May 26 '13 at 22:49

please add the code you've tried so we can see what's the issue. – [bla](#) May 26 '13 at 23:19

According to [subplot](#)

`subplot('Position')` creates the position specified by a four-element vector of normalized coordinates in the range from 0 to 1.

Also note that left and bottom values are calculated from the left bottom of the figure.

Here an example of using subplot in a for loop.

```
figure

% subplot dimension
n1 = 2; % number of rows
n2 = 3; % number of columns

% These values would define the space between the graphs
% if equal to 1 there will be no space between graphs
nw = 0.9; % normalized width
nh = 0.9; % normalized height

for k1 = 1:n1
    for k2 = 1:n2
        subplot(n1,n2,(k1-1)*n2 + k2,...
            'position', [(1-nw)/n2/2 + (k2-1)/n2, (1-nh)/n1/2 + 1-k1/n1,...
                nw/n2 nh/n1]);
        % plot something
        plot(rand(5));
        % turn off the labels if you want
        set(gca, 'XTick', []);
        set(gca, 'YTick', []);
    end
end
```

Hope this helps.

answered May 26 '13 at 23:02



[pm89](#)

1,692 1 11 16

Thank you so much – [hola](#) May 27 '13 at 18:55

In Matlab 2016b: The first plot gets resized, when the second plot is generated and remains too small. What must be changed to get it working in Matlab 2016b? – [Jonas Stein](#) Jan 19 at 23:55