

# Matlab Graph Scatter Plot Examples

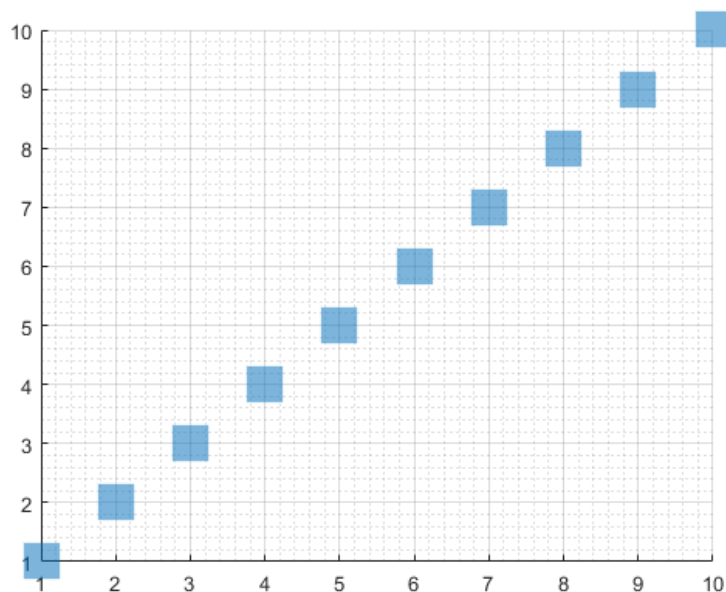
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## Scatter Plot Example

The plot below as square scatter points, each one with thick border. Can set transparency of border/edge and inside separately.

```
close all;
figure();
size = 100;
s = scatter(1:10,1:10,size);

s.Marker = 's';
% color picked by using: uisetcolor
s.MarkerEdgeColor = [0 0.4471 0.7412];
s.MarkerEdgeAlpha = 0.5;
s.MarkerFaceColor = [.61 .51 .74];
s.MarkerFaceAlpha = 1.0;
s.LineWidth = 10;
grid on;
grid minor;
```



```
% 'o' Circle
% '+' Plus sign
% '*' Asterisk
% '.' Point
% 'x' Cross
% 'square' or 's' Square
% 'diamond' or 'd' Diamond
% '^' Upward-pointing triangle
% 'v' Downward-pointing triangle
```

```
% '>' Right-pointing triangle
% '<' Left-pointing triangle
% 'pentagram' or 'p' Five-pointed star (pentagram)
% 'hexagram' or 'h' Six-pointed star (hexagram)
% 'none' No markers
```

## Scatter with Edge and Face Color and Transparency

Here is another way to Set Scatter Edge and Fac Colors and Transparencies.

```
% Generate Data
rng(123);
it_x_n = 10;
it_x_groups_n = 3;
mat_y = rand([it_x_n, it_x_groups_n]);
mat_y = mat_y + sqrt(1:it_x_groups_n);
mat_y = mat_y + log(1:it_x_n)';
ar_x = 1:1:it_x_n;

% Colors
blue = [57 106 177]./255;
red = [204 37 41]./255;
black = [83 81 84]./255;
green = [62 150 81]./255;
brown = [146 36 40]./255;
purple = [107 76 154]./255;
cl_colors = {blue, red, black, ...
             green, brown, purple};

% Scatter Shapes
cl_scatter_shapes = {'s', 'x', 'o', 'd', 'p', '*'};
% Scatter Sizes
cl_scatter_sizes = {100, 100, 50, 50, 50, 50};
% Legend Keys
cl_legend = {'For Borr', 'Inf Borr', 'For+Inf Br'};

% Plot
figure();
hold on;
for it_m = 1:it_x_groups_n
    scatter(ar_x, mat_y(:, it_m), cl_scatter_sizes{it_m}, ...
           'Marker', cl_scatter_shapes{it_m}, ...
           'MarkerEdgeColor', cl_colors{it_m}, 'MarkerFaceAlpha', 0.8, ...
           'MarkerFaceColor', cl_colors{it_m}, 'MarkerEdgeAlpha', 0.8);
    cl_legend{it_m} = cl_legend{it_m};
end
legend(cl_legend, 'Location', 'best');
grid on;
grid minor;
```

