

```

function [ maxX, preScaleMaxX ] = bezierPlot( axesHandle, x, y, c, showPoints )
%bezierPlot
%
    numcurves=size(x,1);

    t=0:.002:1;

    maxX = 0;
    preScaleMaxX = 0;

    x = x + y*c;

    hold(axesHandle, 'on');

    for i=1:numcurves
        if showPoints
            plot(axesHandle, x(i,1),y(i,1),'ro',x(i,4),y(i,4),'ro')
            plot(axesHandle, [x(i,1),x(i,2)], [y(i,1),y(i,2)], 'b:')
            plot(axesHandle, [x(i,3),x(i,4)], [y(i,3),y(i,4)], 'b:')
            plot(axesHandle, x(i,2),y(i,2), 'bs', x(i,3),y(i,3), 'bs')
        end

        bx = 3*(x(i,2) - x(i,1));
        cx = 3*(x(i,3) - x(i,2)) - bx;
        dx = x(i,4) - x(i,1) - bx -cx;

        by = 3*(y(i,2) - y(i,1));
        cy = 3*(y(i,3) - y(i,2)) - by;
        dy = y(i,4) - y(i,1) - by -cy;

        xp=x(i,1)+bx*t+cx*t.*t+dx*t.^3;
        yp=y(i,1)+by*t+cy*t.*t+dy*t.^3;
        plot(axesHandle, xp,yp,'k')

        if max(xp) > maxX
            maxX = max(xp);
        end

        if( max(xp - yp*c) > preScaleMaxX)
            preScaleMaxX = max(xp - yp*c);
        end
    end
    %axis square
    grid on
    hold(axesHandle, 'off')
end

```