```
    if n == 1
        [ll,mm] = showgraph(X,y);
        ww = [w;-1]; n1 = sqrt(ww'*ww);
        if numsvl1 > 0 && numsvm1 > 0
            showSVMs2(ww,-b,epsilon,ll,mm,n1)
        end
    else
        if n == 2
            offset = 10;
            [ll,mm] = showpoints(X,y,offset);
            if numsvl1 > 0 && numsvm1 > 0
                showplanes(w,b,ll,mm,epsilon)
            end
            axis equal
            axis([ll(1) mm(1) ll(2) mm(2)]);
            view([-1 -1 1]);
            xlabel('X','fontsize',14);ylabel('Y','fontsize',14);
            zlabel('Z','fontsize',14);
        end
    end
end
```

The function `buildnuregb` creates the constraint matrix and the matrices defining the quadratic functional.

```
function [A,c,P,Pa,qa] = buildnuregb (nu,X,y,C)
%  builds the matrix of constraints A for
%  soft margin nu-regression
%   with the constraint
%  \sum_{i = 1}^m + \sum_{j = 1}^m mu_j = C nu
%  (without the  variable gamma)
%  and the right-hand side c.
%  Input: an m x n matrix X of data points represented as
%  as the rows of X, and y a vector in R^n.
%  builds the m x m matrix X*X^T, the 2m x 2m matrix
%  P = [X*X^T -X*X^T;  -X*X^T X*X^T],
%  and the matrix Pa as the 4m  x 4m   matrix obtained
%  by augmenting  with zeros.
%  Also builds the vector q_a (q augmented with zeros).
%  C is a scale factor.

m = size(X,1); n = size(X,2);
```