1 2D plot with changed xticklabels

```
clear all;
close all;

fig = figure(1);

x  = [0 0.5 1 1.5 2 2.5 3 3.5 4];
xl = ['ab'; 'bc'; 'cd'; 'de'; 'ef'; 'fg'; 'gh'; 'hi'; 'ij'];

plot( x, sin(x), '-g' );
hold on; grid on;
plot( x, cos(x), '+r-' );
legend( 'sine', 'cosine' );
set(gca, 'XTick', x);
set(gca, 'XTickLabel', xl);


% Save the plot to gnuplot-tex
plot2gp( 'test_2d_plot_changed_xticklabel.tex', fig );
```

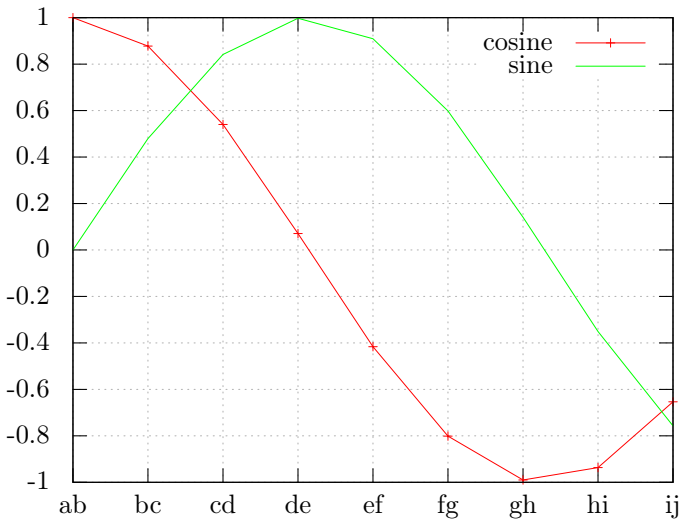

Figure 1: This is a 2d plot in Octave/Matlab with changed xticklabels.

2 2D plot with subplots

```
clear all;
close all;

fig = figure(1);

x   = 0:0.1:2*pi;

subplot(2,1,1)
  plot( x, 1e4 * sin(x), '-g' );
  hold on; grid on;
  plot( x, 1e4 * cos(x), '+r-' );
  plot( x, 1e4 * cos(x) + 1e4 * sin(x), 'ok-' );
  legend( 'sine', '', 'sum' );

subplot(2,1,2)
  plot( x, cos(x), '-r' );
  legend( 'cosine' );

% Save the plot to gnuplot-tex
plot2gp( 'test_2d_plot_subplot.tex', fig );
```

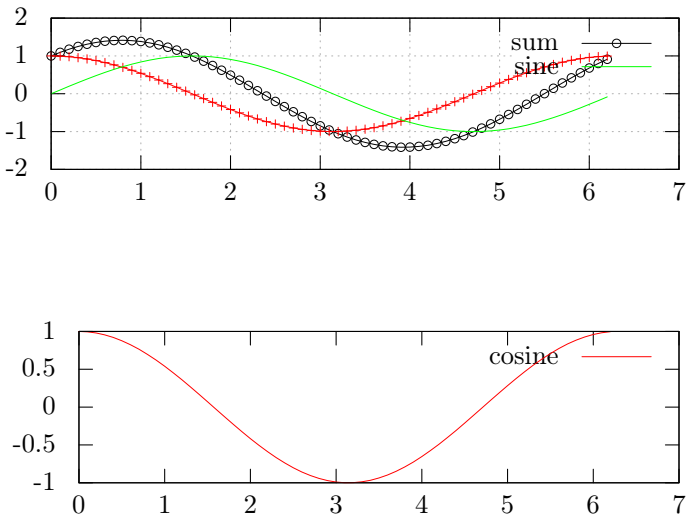

Figure 2: This is a standard subplot from Octave/Matlab.

3 2d plot with subaxis

```
clear all;
close all;

fig = figure(1);

x   = 0:0.1:2*pi;

subaxis(2,1,1,'Spacing', 0.03, 'Padding', 0, 'Margin', 0)
  plot(x,sin(x), '-g');
  hold on; grid on;
  plot(x,cos(x),'+r-');
  plot(x,cos(x)+sin(x),'ok-');
  legend('sine','','sum');

subaxis(2,1,2,'Spacing', 0.03, 'Padding', 0, 'Margin', 0)
  plot(x, cos(x), '-r');
  legend('cosine');

% Save the plot to gnuplot-tex
plot2gp( 'test_2d_plot_subaxis.tex', fig );
```

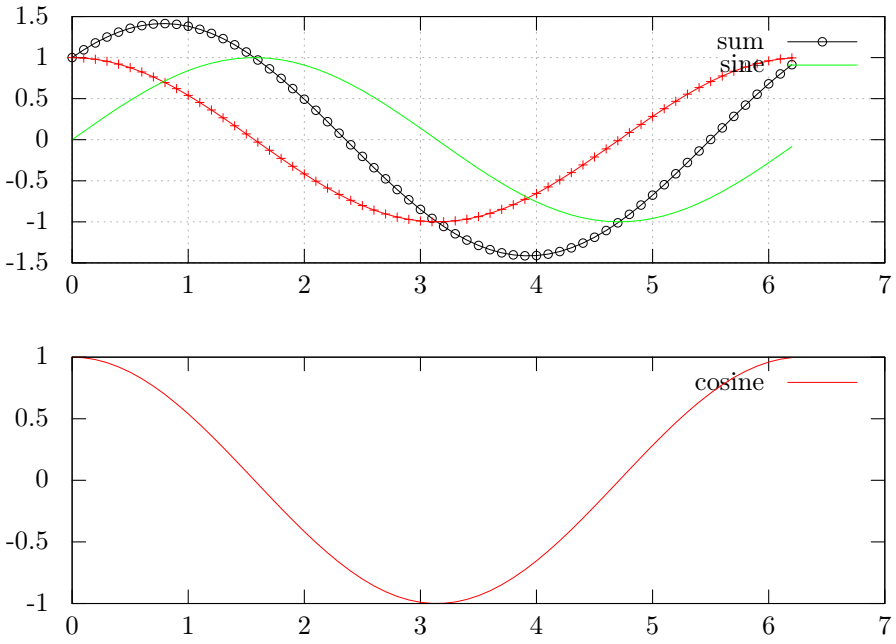

Figure 3: This is a subaxis plot. Subaxis can be found on the Mathworks homepage.

4 2d plot with user definitions

```
clear all;
close all;

fig = figure(1);

x   = 0:0.1:2*pi;

subplot(2,1,1)
  plot( x, sin(x), '-g' );
  legend( 'sine' );

subplot(2,1,2)
  plot( x, cos(x), '-r' );
  legend( 'cosine' );

user_defs.size = [1.0, 1.0];

% Overwrite the plot sizes
user_defs.plot(1).plotsize = [0.3, 0.3];
user_defs.plot(2).plotsize = [0.3, 0.3];
% Overwrite the plot margins
user_defs.plot(1).lmargin  = 0.2;
user_defs.plot(2).lmargin  = 0.2;
user_defs.plot(1).rmargin  = 0.1;
user_defs.plot(2).rmargin  = 0.1;
user_defs.plot(1).tmargin  = 0.1;
user_defs.plot(2).tmargin  = 0.1;
user_defs.plot(1).bmargin  = 0.2;
user_defs.plot(2).bmargin  = 0.2;
% Overwrite the suplot positions
user_defs.plot(1).plotorigin = [0.0, 0.0];
user_defs.plot(2).plotorigin = [0.5, 0.5];

% Save the plot to gnuplot-tex
plot2gp( 'test_2d_plot_user_defs.tex', fig, user_defs );
```

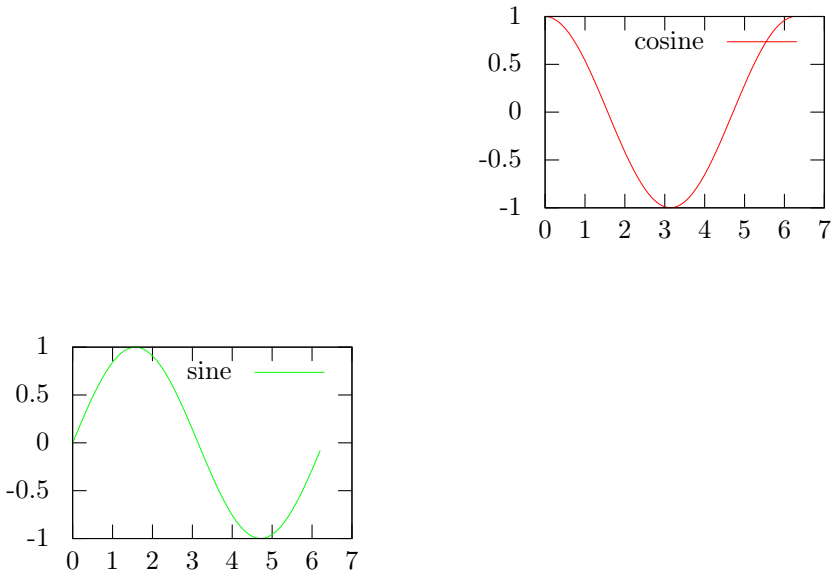

Figure 4: This is a subplot plot, where the user defined the positions.

5 Histogram plot

```
clear all;
close all;

fig = figure(1);

n = sqrt(0.5) .* randn( 1e6, 1 );

hist( n, 20 );
legend( 'hist of n' );

% Save the plot to gnuplot-tex
plot2gp( 'test_hist_plot.tex', fig );
```

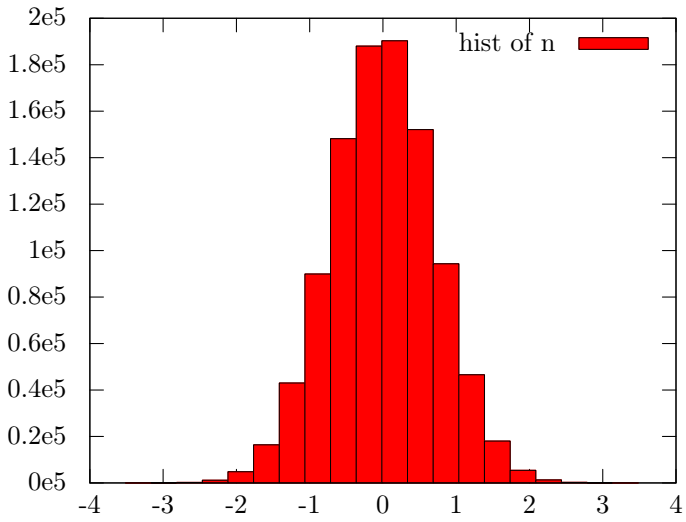

Figure 5: This is a histogram plot.

6 3D surf plot

```
clear all;
close all;

fig = figure(1);

x         = -10:0.5:10;
y         = -10:0.5:10;
[mx, my] = meshgrid( x, y );
rtsq      = sqrt(mx.^2 + my.^2);
z         = sin(rtsq) ./ rtsq;

surf(x, y, z);
hold on;
surf(x, y, cos(rtsq) );

xlabel('$x \rightarrow$');
ylabel('$y \rightarrow$');
zlabel('$z \rightarrow$');
legend('sine of root square', 'cosine of root square', 'Location','NorthWest');

% Save the plot to gnuplot-tex
```

```
plot2gp( 'test_3d_plot_surface.tex', fig );
```

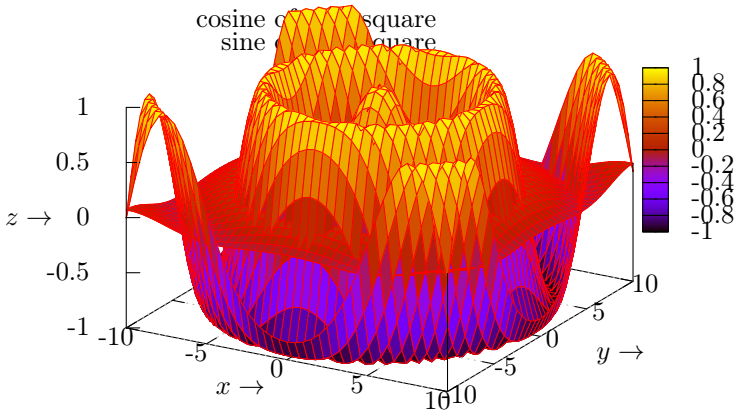

Figure 6: This is a surface plot from Octave/Matlab.

7 3D mesh plot

```
clear all;
close all;

fig = figure(1);

x        = -10:0.5:10;
y        = -10:0.5:10;
[mx, my] = meshgrid( x, y );
rtsq     = sqrt(mx.^2 + my.^2);
z        = sin(rtsq) ./ rtsq;

mesh(x, y, z);
hold on;
mesh(x, y, cos(rtsq) );

xlabel('$x \rightarrow$');
ylabel('$y \rightarrow$');
zlabel('$z \rightarrow$');
legend('sine of root square', 'cosine of root square', 'Location','NorthWest');

% Save the plot to gnuplot-tex
plot2gp( 'test_3d_plot_mesh.tex', fig );
```

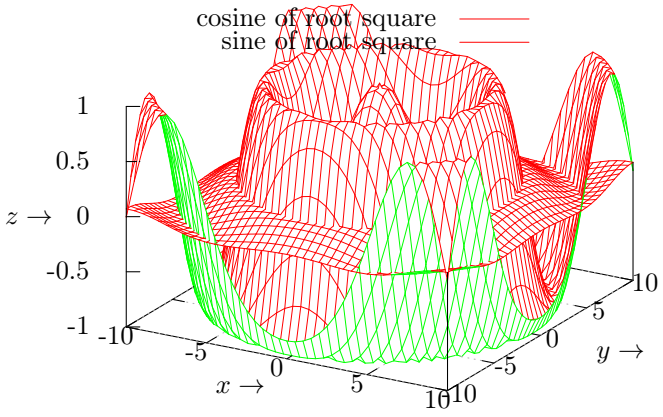

Figure 7: This is a mesh plot from Octave/Matlab.

8 3D surf plot with user specific options

```
clear all;
close all;

fig = figure(1);

var_X = 0.25;
var_Y = 2;
xbin  = -5:0.2:5;

fX = 1/sqrt( 2*pi*var_X ) .* exp( -( xbin ).^2 ./ ( 2*var_X ) );
fY = 1/sqrt( 2*pi*var_Y ) .* exp( -( xbin ).^2 ./ ( 2*var_Y ) );

fXY = conv2( fX, fY.' );

surf( xbin, xbin, fXY );


user_defs.size = [1.0, 1.0];
user_defs.plot(1).user_specific = ...
['set palette defined ( 0 "#bd2c29", 2 "#ffd35a", 6 "white"); \n', ...
'set pm3d implicit at s hidden3d 100;\n', ...
```

```
'set style line 100 lc rgb ''#000000'' lt 1 lw 0.6;\n', ...
'unset hidden3d; \n', ...
'unset surface;\n'];

% Overwrite the plot margins
user_defs.plot(1).lmargin  = 0.0;
user_defs.plot(1).rmargin  = 0.0;
user_defs.plot(1).tmargin  = 0.0;
user_defs.plot(1).bmargin  = 0.0;
% Overwrite the suplot positions
user_defs.plot(1).plotorigin = [0.0, 0.0];

% Save the plot to gnuplot-tex
plot2gp( 'test_3d_plot_user_defs.tex', fig, user_defs );
```

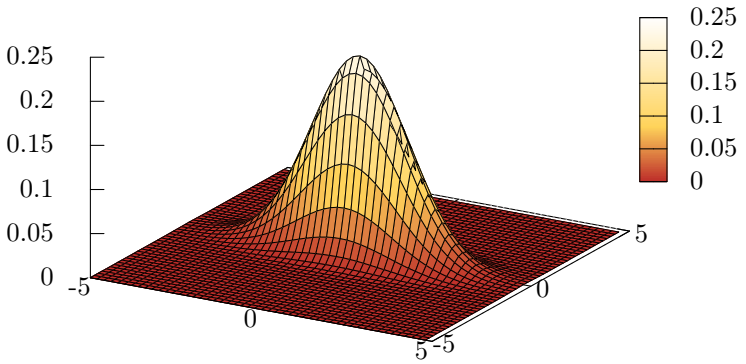

Figure 8: This is a surf plot from Octave/Matlab with user specific options.