Graph editor users guide

What can the Graph editor be used for ?

Graph editor lets you Create, edit and store graphs and multi graphs with definition of drawing.

You can then take a look at your defined graph on 2D or even 3D visualization. There are two surfaces supported: Sphere and Torus. All your graphs can be projected on both of them.

Note: Graph can be edited in 2D view only.
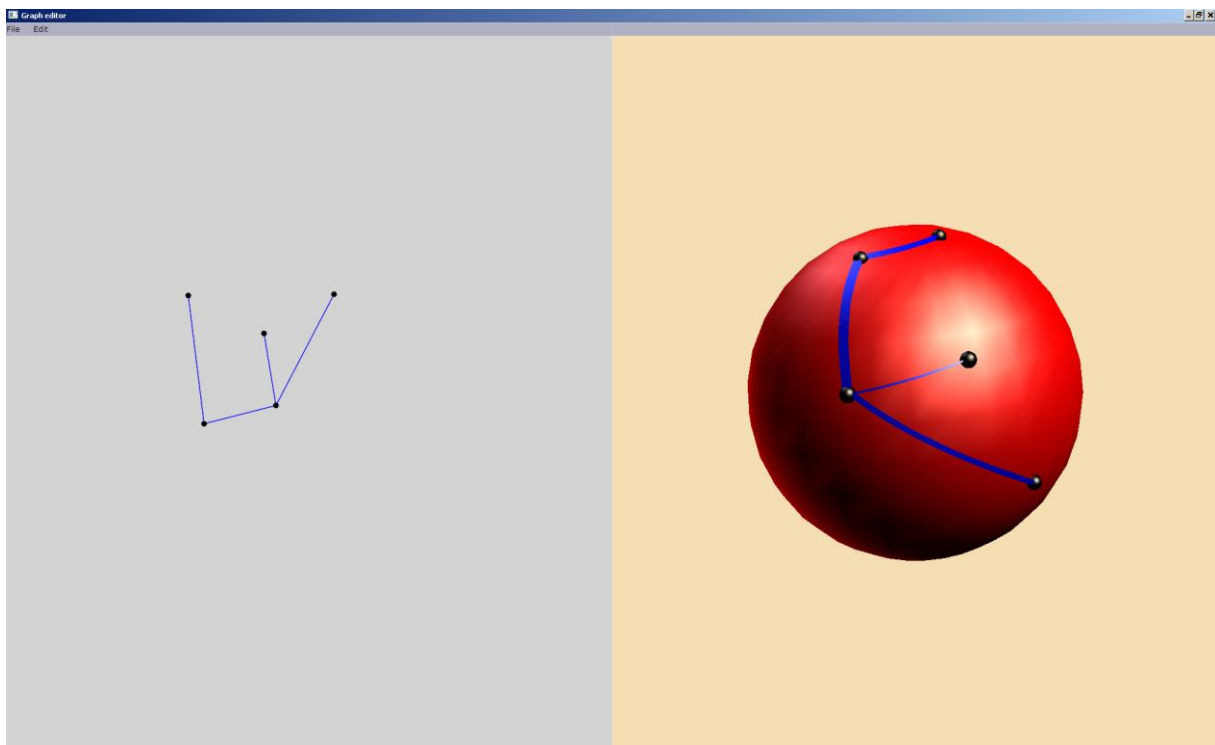
First look at main window

There is a 2D visualization on left side and 3D on right side. You can adjust the size of these parts by drag and drop the "split line".

Menu bar

In main menu (left top of the window) you can find all standard tasks.

File menu lets you to save, load and clear graph. Save and loads tasks are handled with standard windows open/save file dialog.

In Edit menu you can find:

- Undo
  - Returns one step in your editing

- Redo
  - Restores undo step
- Change surface color
  - Opens a color dialog, where a color for surface can be selected
- Change Wiremodel / NormalModel
  - 3D model can be shown usual or as wire model
  - Caution : wire mode projection can be very slow
- Set surface
  - You can select the projection surface
  - You can chose from
    - Sphere
    - Torus
- Load plugin
  - You can load plugin which creates you an specific drawing of graph
  - The plugin must by written according to program documentation

Graph editing

Vertices

When you want to place new vertex, just click using middle mouse button on selected position.

Vertex can be moved by left mouse "drag and drop" (click on selected vertex, hold the button down and move to new position)

Note: by moving vertex you should see another cursor (look like a hand)

Each vertex also provide a context menu (right click on vertex) as you can see on picture. Using this menu you can delete selected vertex or change vertex color (color dialog will be shown).
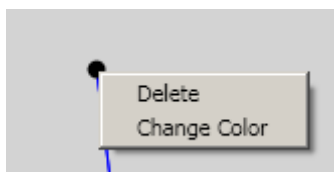

Figure 2: vertex contenxt menu

Edges

To add new edge between vertex A and vertex B. Press middle button on vertex A and with button down drag to vertex B and release it there.

Each edge don't need to be strait. But you can also have a polygonal line. This can be done in those steps:

1. Find edge to convert to polygonal line
2. Open context menu on that line
3. Select "add point" option
4. This creates you a small gray point in the middle of line
5. Move this point where you want
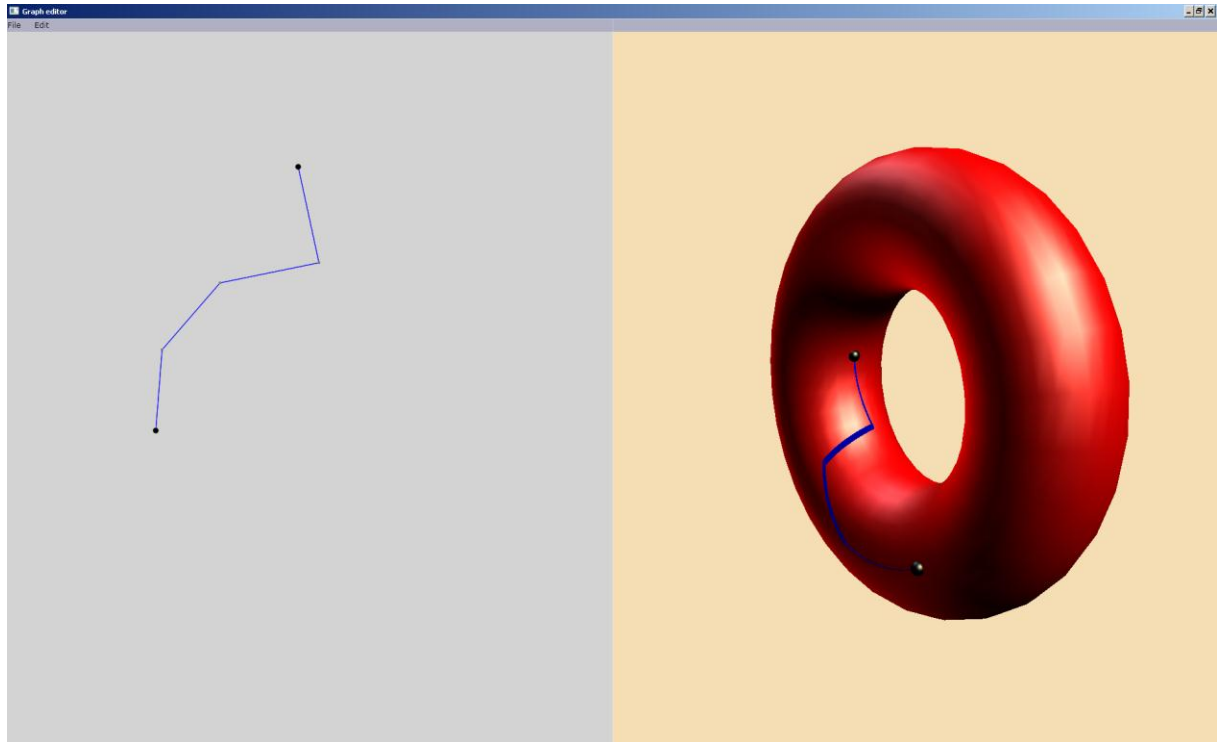
6. This can by repeated multiple times

Figure 3: polygonal line

Every line also can go throw a "Join". This takes effect on torus only.

You can select X or Y join. If you don't want the line to go strait, but "round the torus", select this line and chose "Use X (Y) Join" in context menu. You can see effect of using the Y join on figures 4 and 5
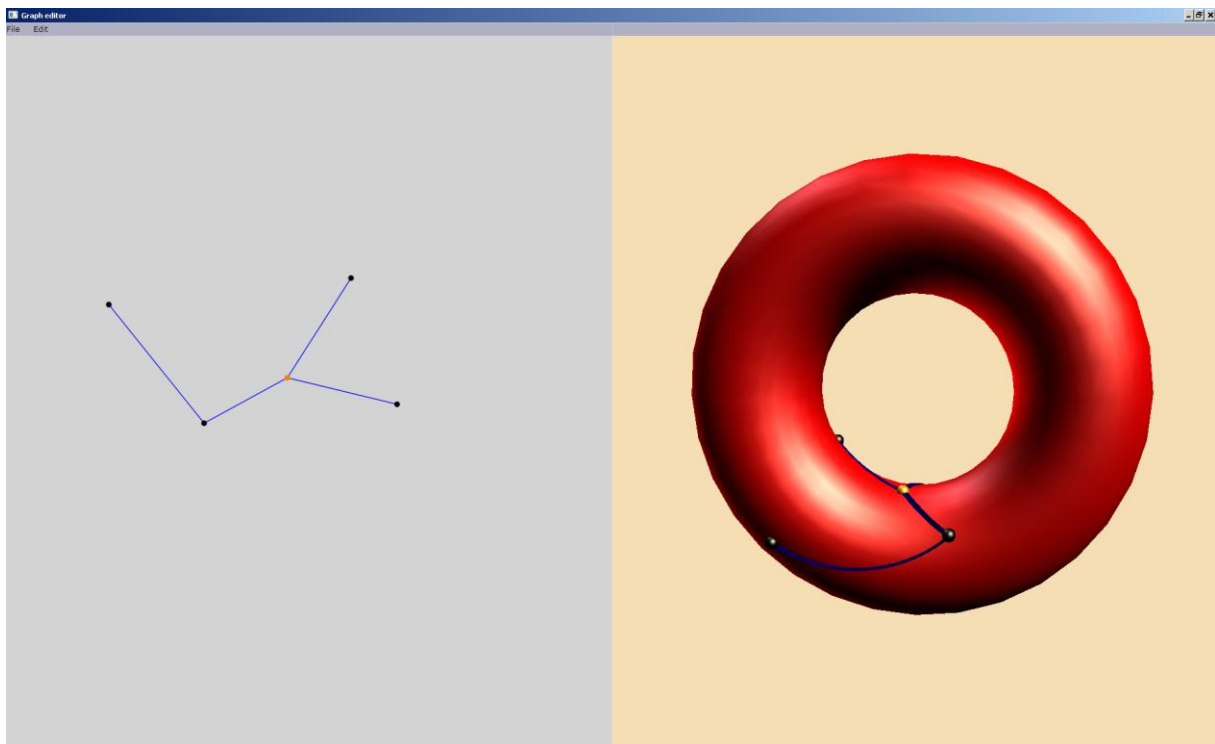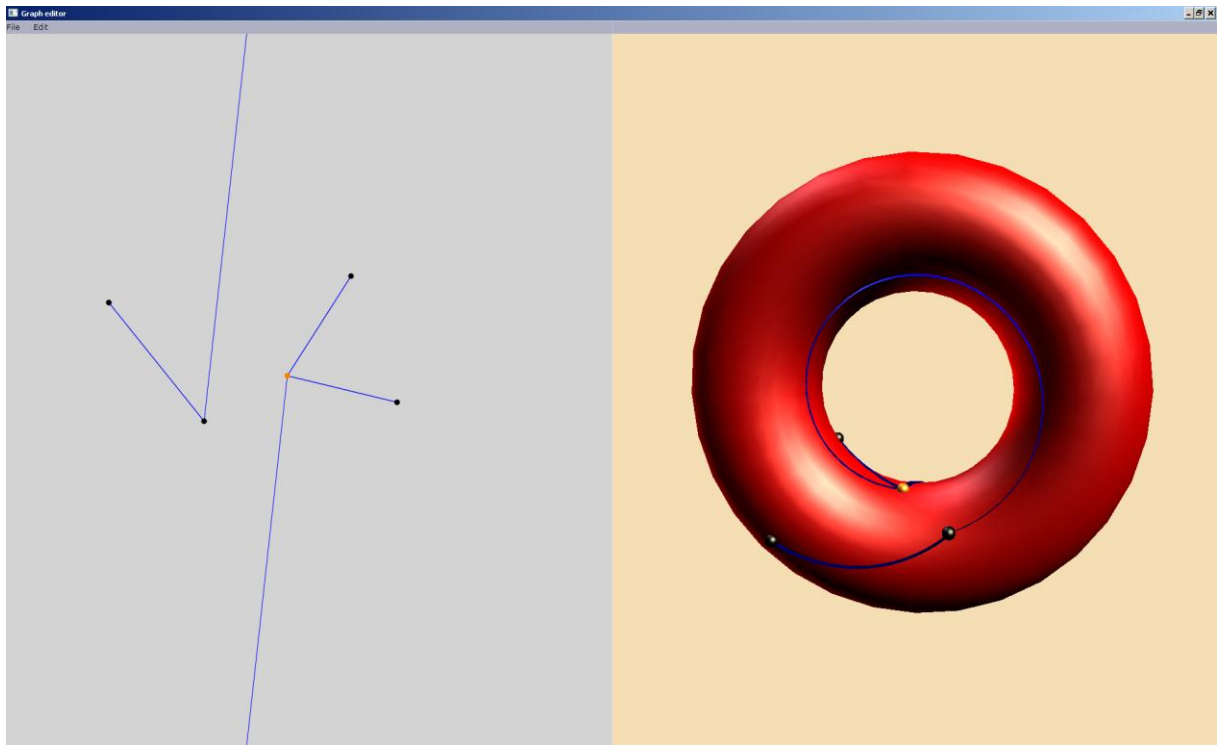

Figure 4: Edge without using Y Join

Figure 5: Edge with using Y Join
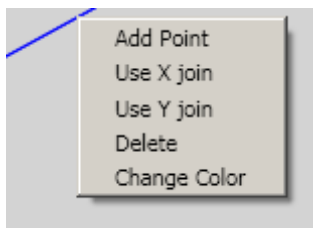
You can also change color of edge and delete selected edge from edge context menu.

Figure 6: Edge context menu