

Within this tutorial we are going to use the QSEE multi-CASE tool to model a simple network structure. The aim of this tutorial is to give a user the basic skills required to work within the QSEE-SuperLite environment. Prior to beginning the tutorial please start the “QSEE-SuperLite” software package.

Step 1. Creating a new project

Within this tutorial you are going to create a completely new network chart within the multi-CASE tool. Your first task is to create a new project in which the new model can be created.

1.1 Select the “Project | New Project” option from the main menu. See figure 1.1.

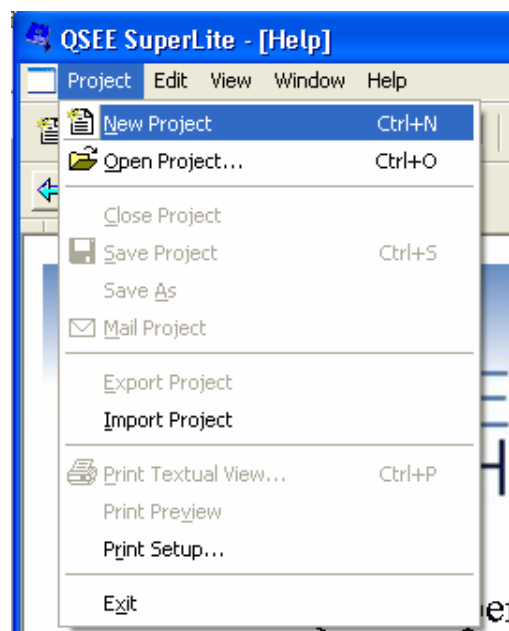


Figure 1.1

A new project will now be created, ready for use.

hint: A new project may also be created by pressing **CTRL-N** or by clicking on the new project icon in the main toolbar.

When a new project is created you may be presented with a dialogue that lists the available project types. If this appears then select the **multi-CASE** option and press the OK button. (note: this dialogue only appears on installations of QSEE-SuperLite that have multiple tools installed).

Step 2. Creating a new network chart diagram

Now that a new project has been created we are ready to create a new **network chart diagram**. New models are added to a project by right clicking on the folder icon within the navigator tree (the left-most window of the program) and selecting the appropriate option.

2.1 Right click the top level folder icon named “Untitled” in the project and select “Add Network Chart”. See figure 2.1.

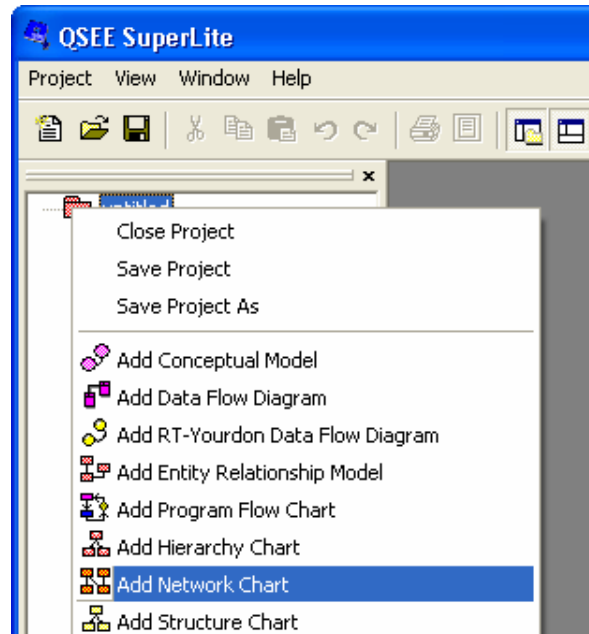


Figure 2.1

2.2 When prompted for the name of the diagram press OK (see figure 2.2). This name is usually used to express the name of the model being developed, but in this case we will just use the default.

Once OK has been pressed a new empty diagram ready for further manipulation will be created and displayed.

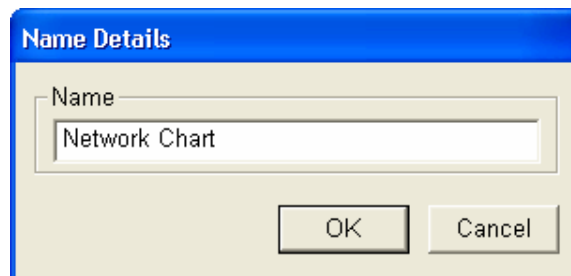


Figure 2.2

Step 3. Adding graphical nodes

We are now ready to begin building the diagram. We will start by adding graphical nodes, which in this case represent network elements.

3.1 Right click on the network diagram and select the option “Add Network Element” from the menu. See figure 3.1.

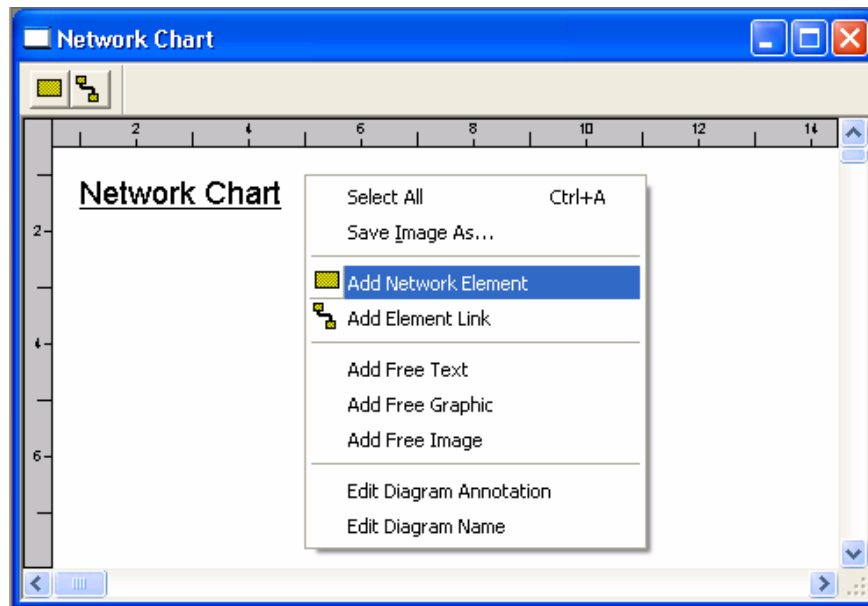


Figure 3.1

After selecting “Add Network Element” you will be able to place a new network element on the diagram.

3.2 Move the dashed box to where you want the network element to be positioned and left click.

You will now be prompted to add a name for the network element (see figure 3.2), we suggest you use the name “Element 1”.

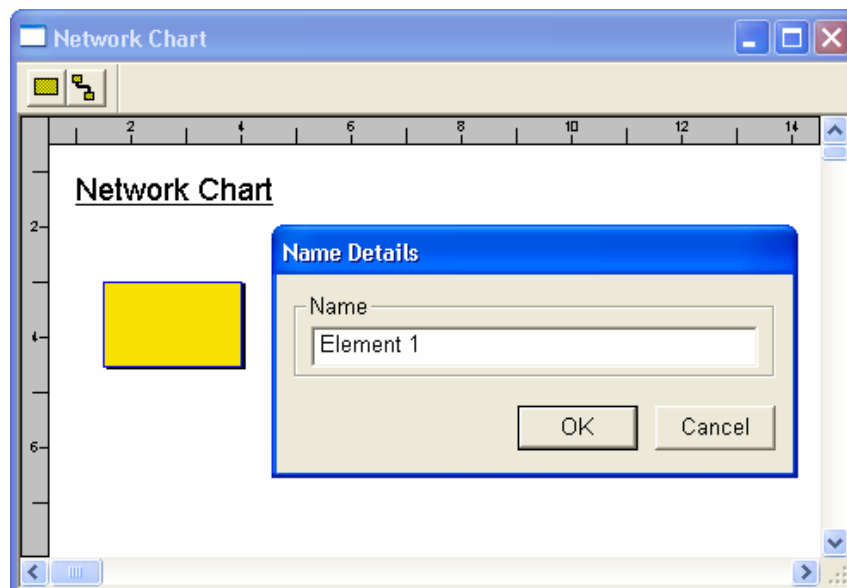


Figure 3.2

3.3 Add two more network elements using the same method as before. You can call these “Element 2” and “Element 3”.

Your network chart should now resemble the diagram shown in figure 3.3

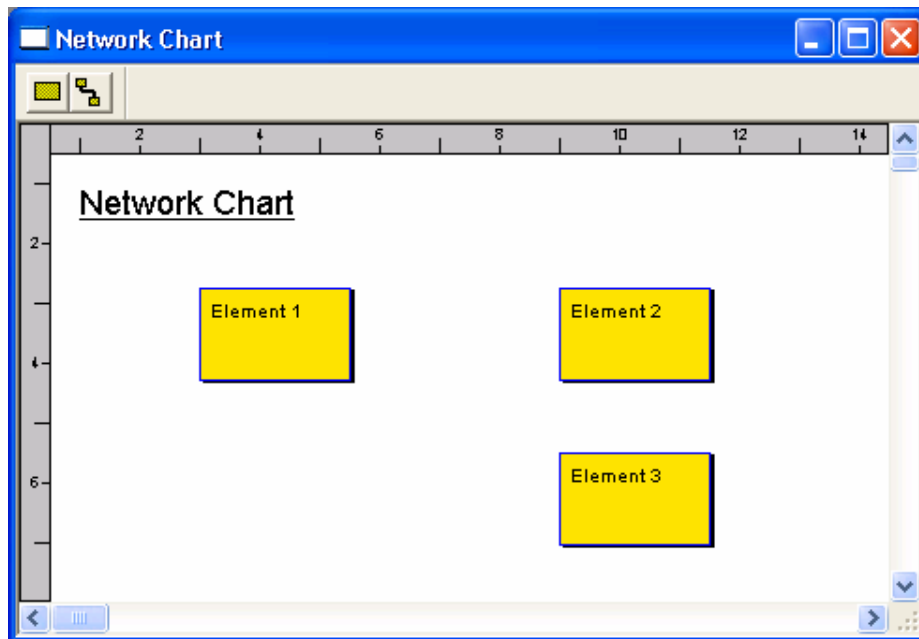


Figure 3.3

Step 4. Saving a Project

Now will be a good time to save the project. This can be done using **one** of the following methods –

- a) Select the “**Project | Save Project**” option from the main menu (see figure 4.1),
- b) Left click on the disk icon within the main toolbar (see figure 4.2),
- c) Right click on the project folder within the navigator tree and select “**Save Project**”, or
- d) Press **CTRL-S** on the keyboard.

4.1 Use one of the above methods to save your project. Since this is the first time the project has been saved you will be prompted for a suitable filename. Enter something meaningful and select OK.

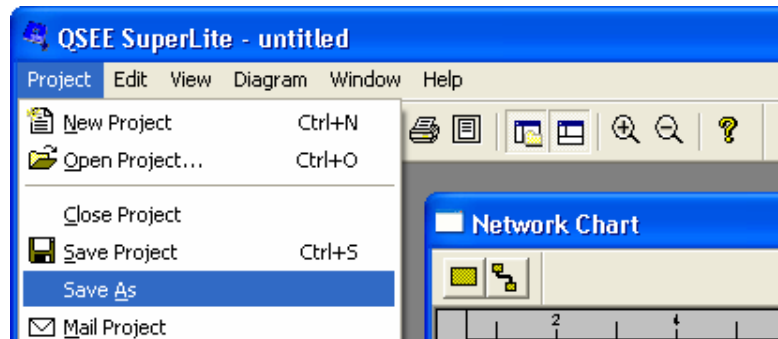


Figure 4.1

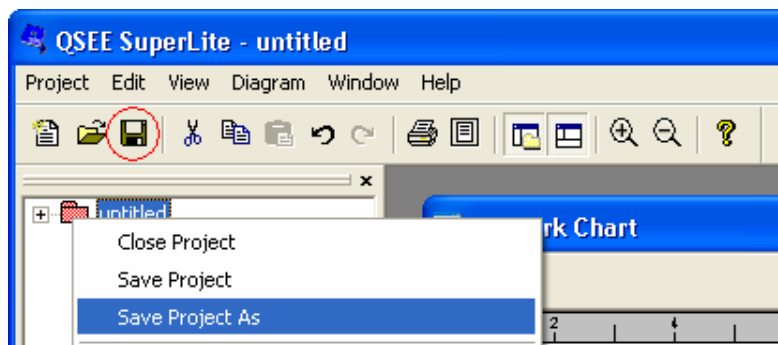


Figure 4.2

Step 5. Adding graphical links

We will now look at adding network links to the diagram.

5.1 Right click on the diagram and select “Add Element Link” from the menu. See Figure 5.1. The cursor will now change to a cross. To select the elements that the link is going to connect, left click each of them in turn. In this case “Element 1” and “Element 2”. The link will now appear on the screen. *Hint:* If you make a mistake press the **Esc** key to cancel the add link operation.

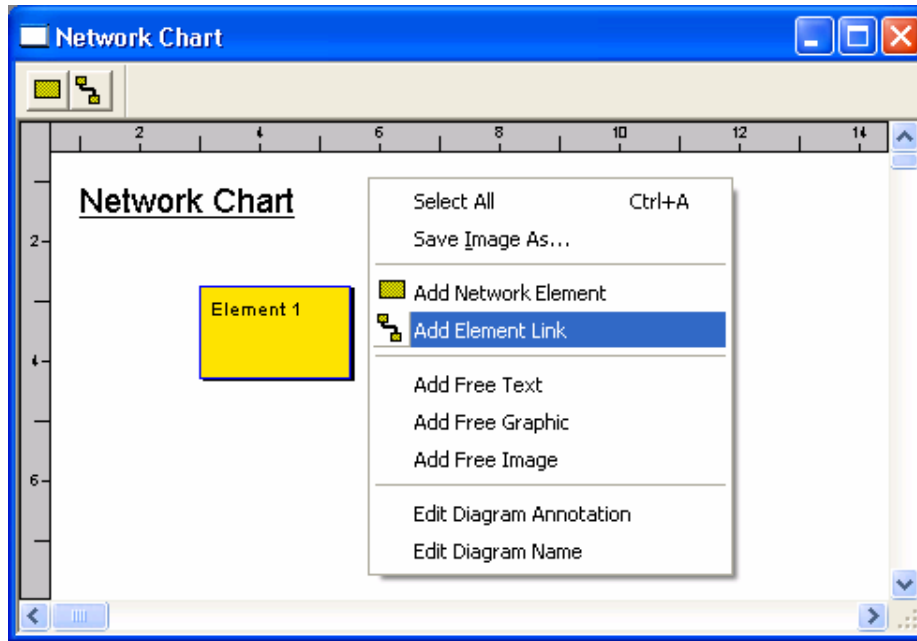


Figure 5.1

5.2 Now add a link between “Element 2” and “Element 3” and a link between “Element 3” and “Element 1”. Your network chart should now resemble the one below.

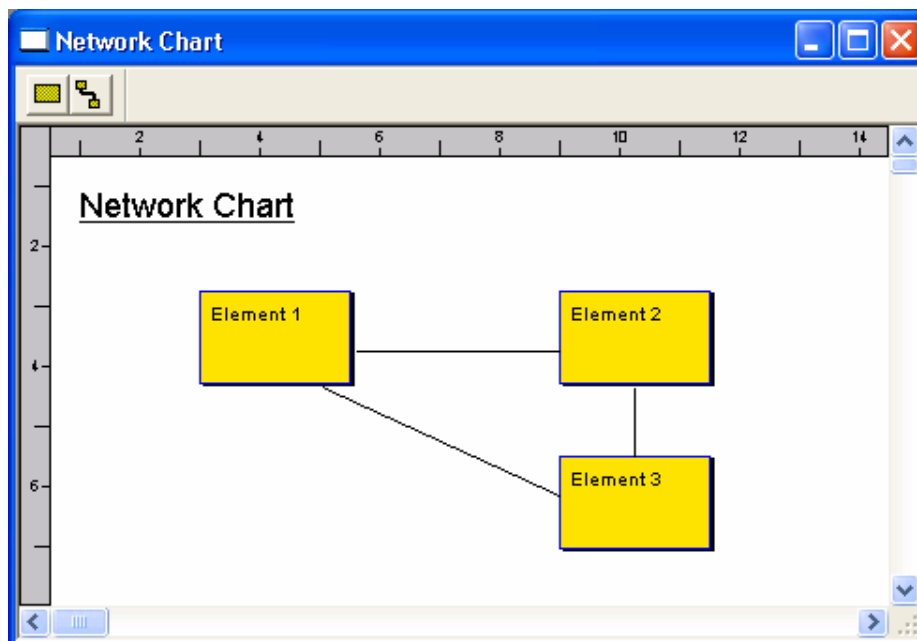


Figure 5.2

The link you have created will be drawn as straight lines but this can be changed by adding link points.

5.3 Right click on the link between “Element 3” and “Element 1” and select “Add Link Point” from the menu (see figure 5.3). Now reposition the new link point by left clicking and dragging as required.

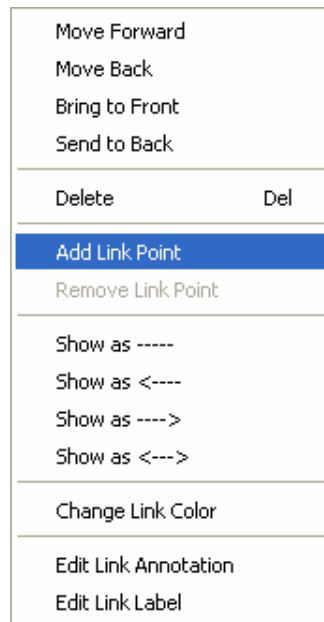


Figure 5.3

5.4 Add two more link points to the link between “Element 2” and “Element 3”. Try to make your link look like the one shown in figure 5.4 *hint*: this may be a good time to save your work again.

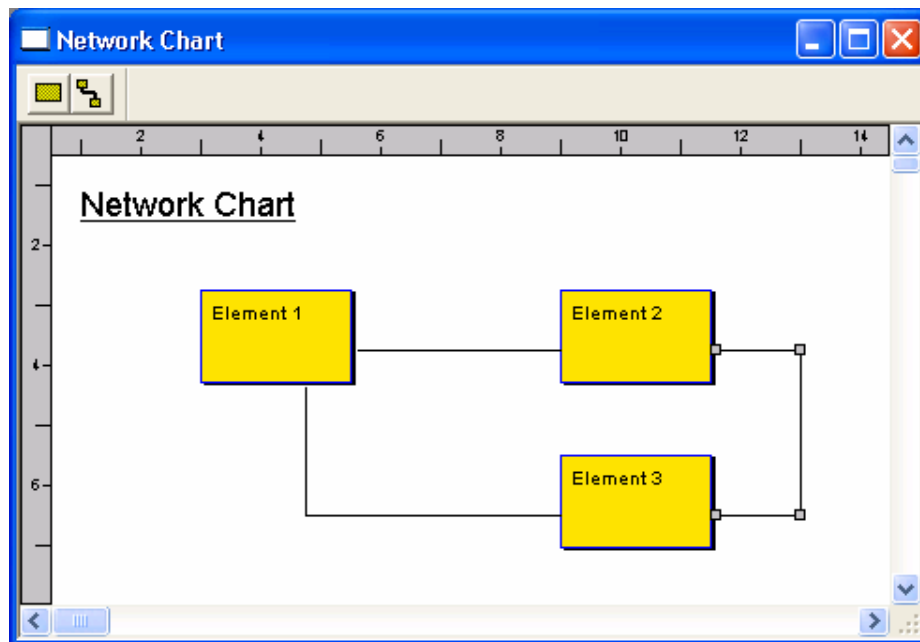


Figure 5.4

To give your links more meaning you can add textual labels to them.

5.5 Right click on the link between “Element 1” and “Element 2” and select the option “Edit Link Label”. See figure 5.5.

You will now be prompted to add a name for the link, we suggest “Link 1”. The text will now appear next to the link.

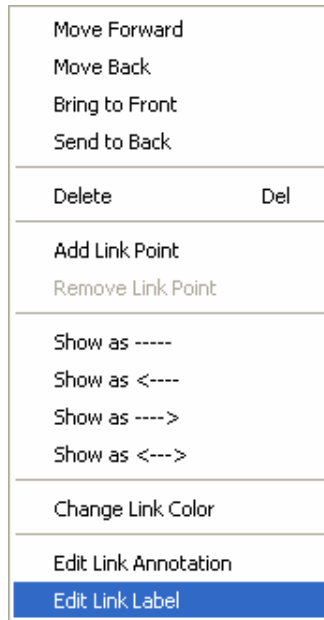


Figure 5.5

5.6 Now add a label for the link between “Element 2” and “Element 3” called “Link 2” and a label between “Element 3” and “Element 1” called “Link 3”.

Your network chart should now resemble the one show in figure 5.6.

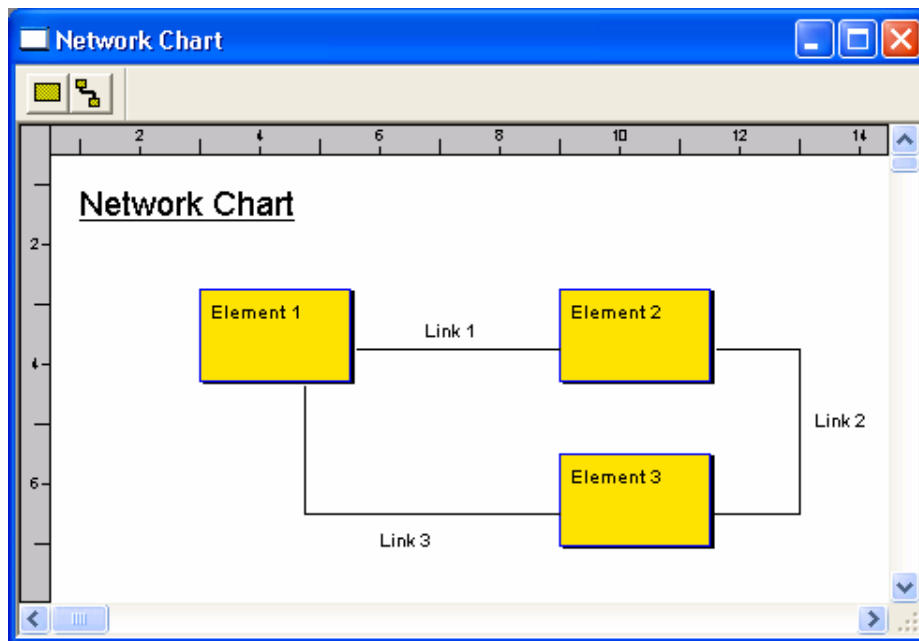


Figure 5.6

To give the links more meaning still it is possible to transform them into directional arrows. First we will edit the link between “Element 1” and “Element 2” to make it a double headed arrow.

5.7 Right click on the link and select the double ended link style from the menu, see figure 5.7.

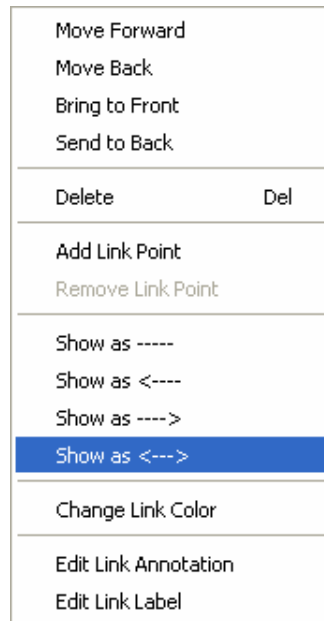


Figure 5.7

5.8 Now change the link between “Element 2” and “Element 3” into an arrow pointing to “Element 3” and change the link between “Element 3” and “Element 1” into an arrow pointing to “Element 1”.

Your network chart should now resemble the one shown in figure 5.8.

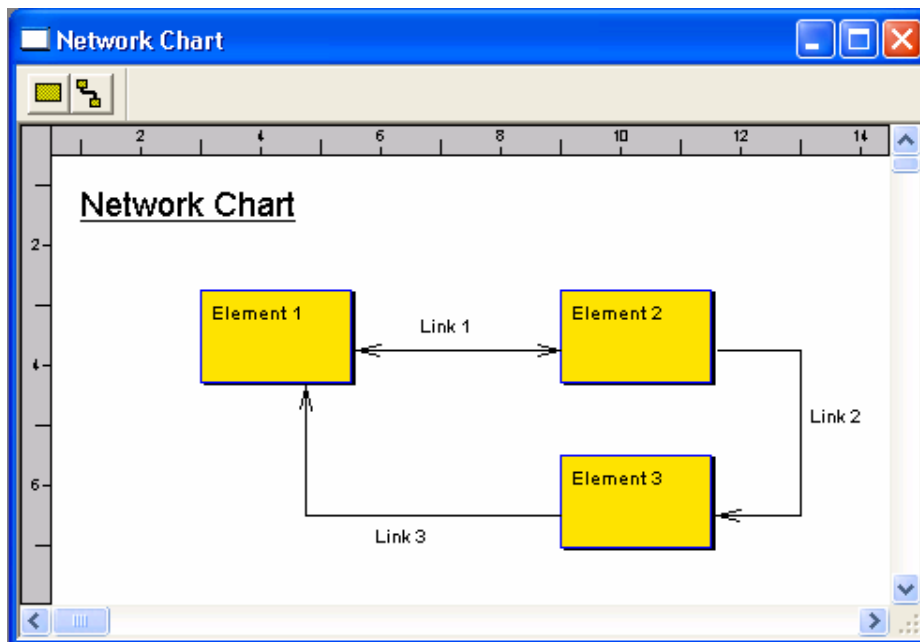


Figure 5.8

Step 6. Changing Default Colors

We will now look at adding further customization to your diagram. We will start with changing the default colors. You can change the color of almost any object on the diagram.

6.1 Right click on the network element “Element 1” and select “Change Element Color”, see figure 6.1. A window will appear allowing you to select colors from a list.

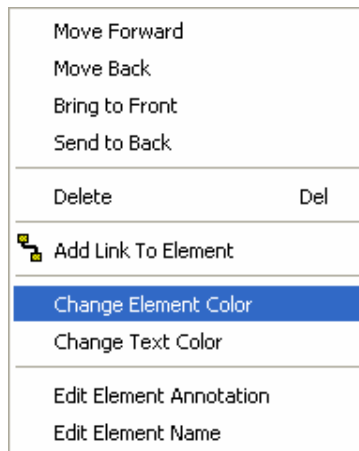


Figure 6.1

6.2 Select a color, e.g. red and left click “OK”, see figure 6.2.

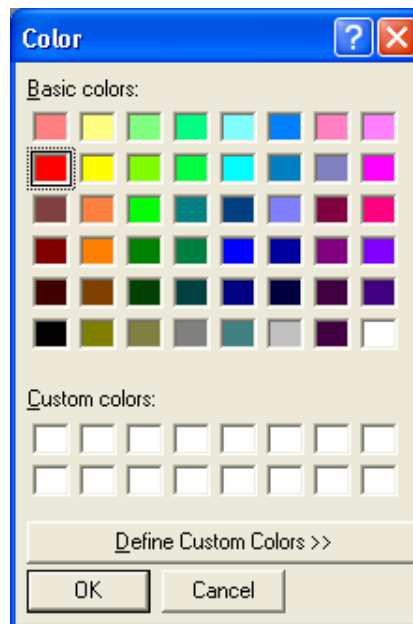


Figure 6.2

Link color and text color can be changed in the same way. It is also possible to change the color of the element name by selecting “Change Text Color” from the context sensitive menu.

6.3 Now make “Element 3” green and all the link labels, links (except link1) and element names blue . Your network chart should now resemble the one shown in figure 6.3. *hint:* this may be a good time to save your work again.

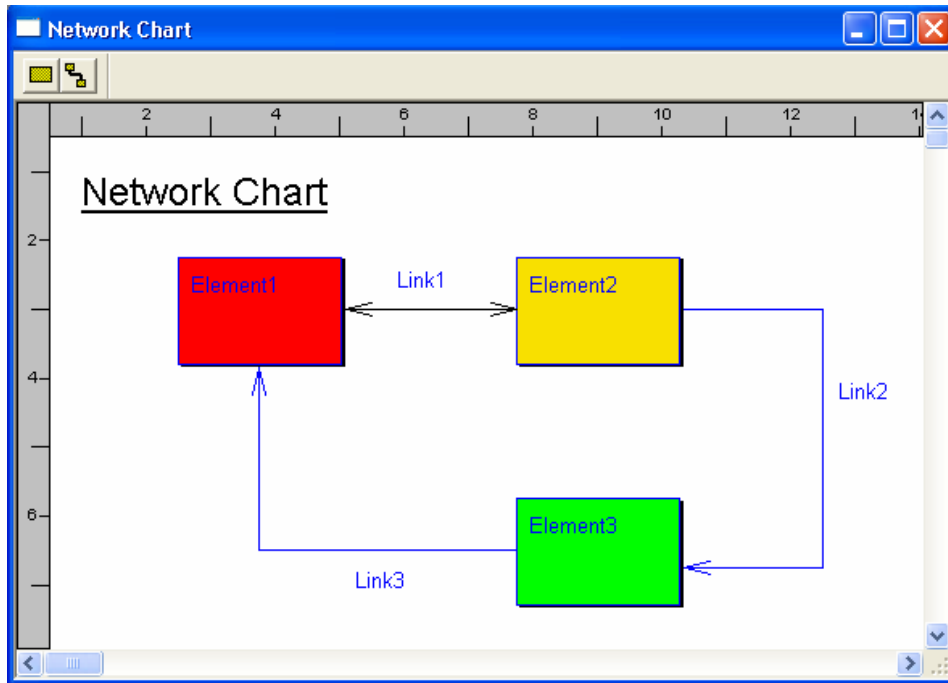


Figure 6.3

Step 7. Adding Annotations

We will now place notes on the diagram to aid diagram clarity. These notes are known as “Free Text”.

7.1 Right click on the diagram and select the option “Add Free Text”.

Place the dashed box where you wish it to be positioned on the diagram and left click. When prompted input the required text, such as “This is free text”, and click “OK”. See figure 7.1

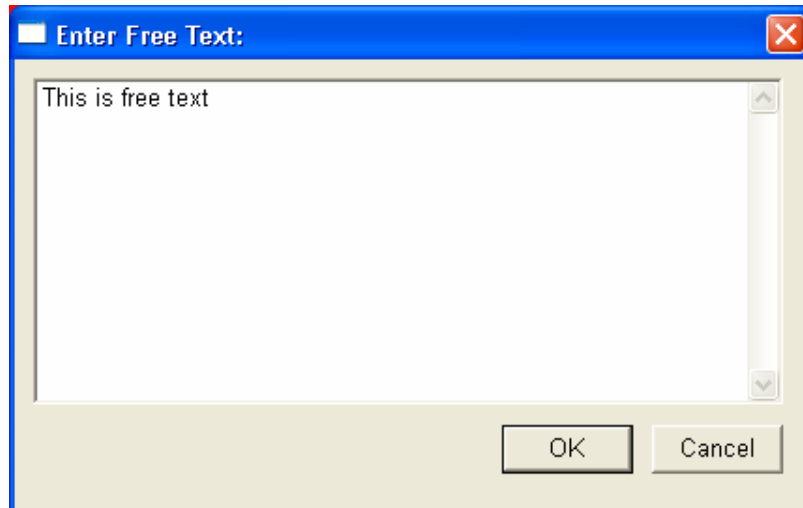


Figure 7.1

It is also possible to add graphical annotations to a diagram. These are called “Free Graphics”.

7.2 Right click on the diagram and select the option “Add Free Graphic”.

Place the dashed box where you wish it to be positioned on the diagram and left click, see figure 7.2.

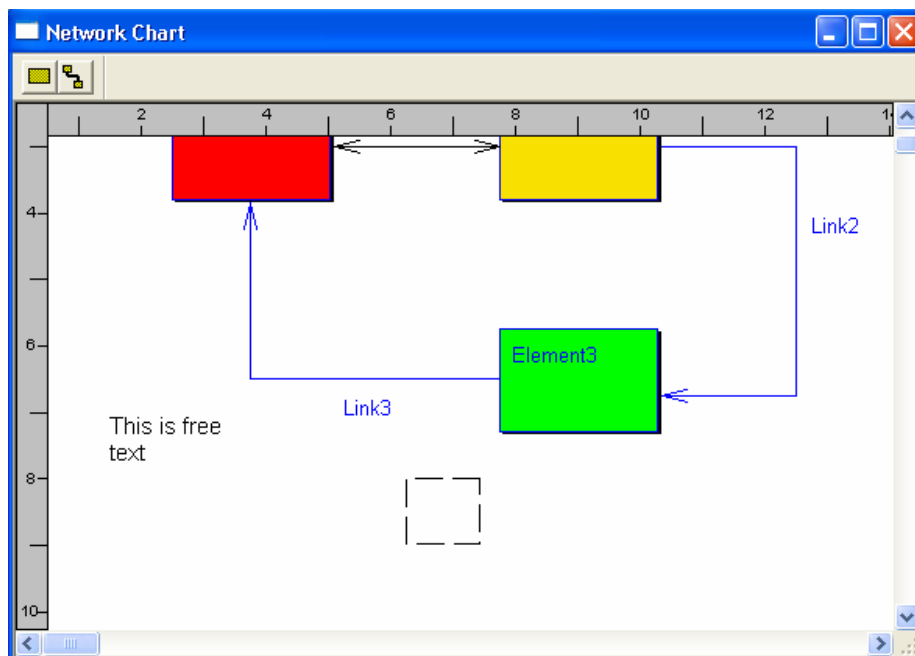


Figure 7.2

Free graphics may be shown as either rectangles (default) or ellipses.

7.3 Right click the graphic and select “Make Elliptical” from the menu. This will cause the graphical annotation to be shown as elliptical rather than rectangular. See figure 7.3.

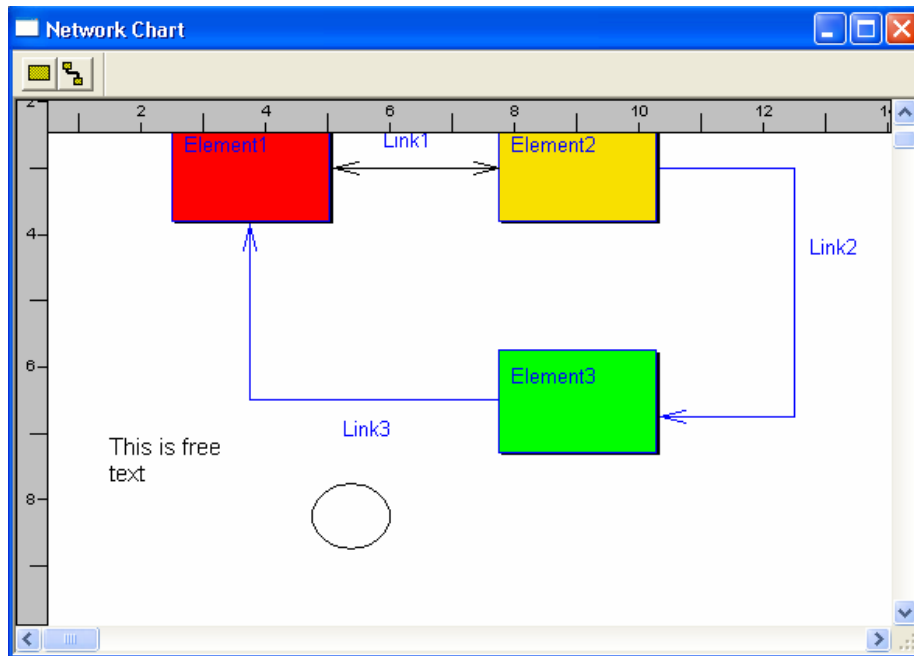


Figure 7.3

It is also possible to change the color of the line and the background color separately by right clicking the graphic and selecting either “Change Background Color” or “Change Line Color”.

7.4 Set both the line color and the background color of the graphic to be red see figure 7.4.

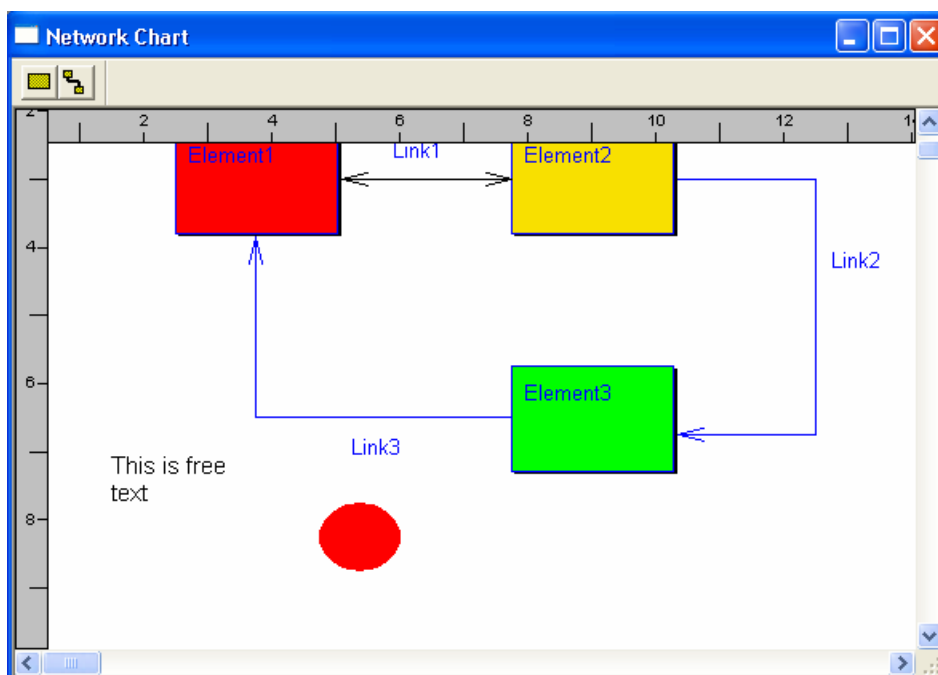


Figure 7.4

It is also possible to add image annotations to a diagram. These are called “Free Images”. These are added in a very similar way to free text and free graphics. Images must be loaded from a suitable image file available on your machine’s file system. Any image can be loaded providing it is in a format supported by the software, e.g. bmp, jpg, gif.

Step 8. Object Manipulation

We will now look at some object manipulation functions that are available. We will start with repositioning objects on the diagram. All objects on the diagram can be moved by left clicking and holding down the button while dragging. *Hint:* link points can be moved by clicking on the link point handle.

8.1 Move the objects that are currently on the diagram so that they resemble the positions shown in figure 8.1.

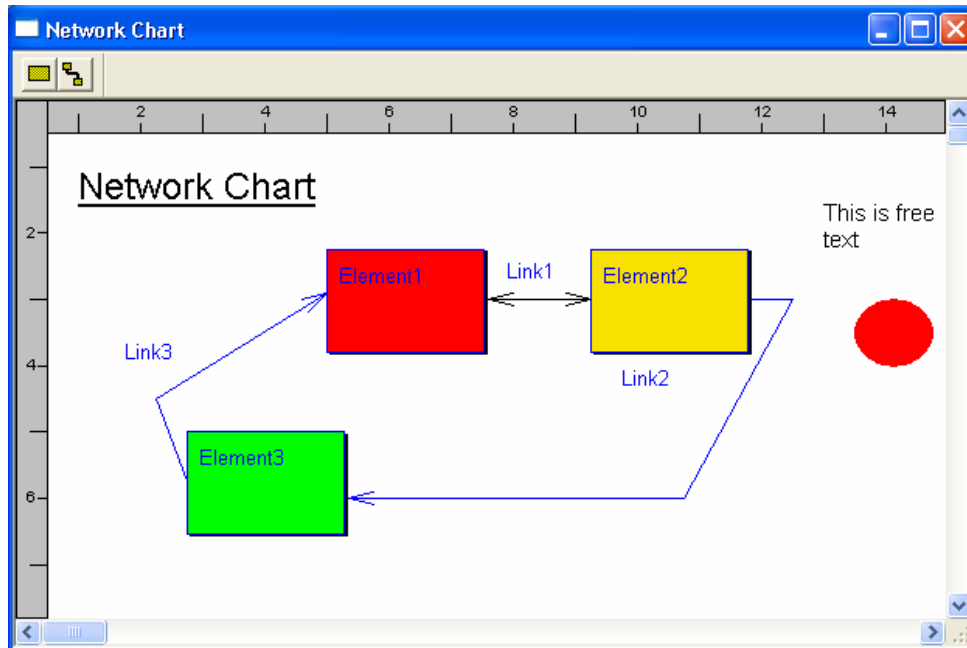


Figure 8.1

Objects on the diagram can also be resized by selecting an object then left clicking and dragging a selection handle.

8.2 Resize the objects that are currently on the diagram so that they resemble those shown in figure 8.2.

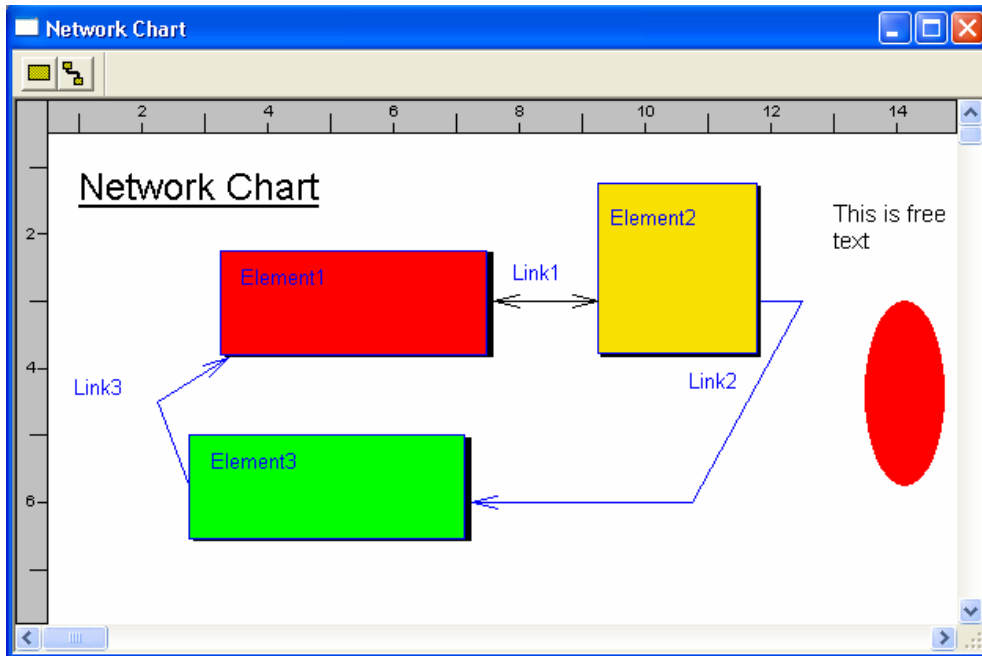


Figure 8.2

Step 9. Using Cut, Copy and Paste

QSEE-SuperLite provides full Cut, Copy and Paste facilities. Objects can be manipulated this way within the application or between this and other applications that support diagrams, e.g. Microsoft Word.

9.1 Copy the elliptical free graphic object by placing it into the current selection (by left clicking on the object) and then selecting “Edit | Copy” from the main menu bar, see figure 9.1.

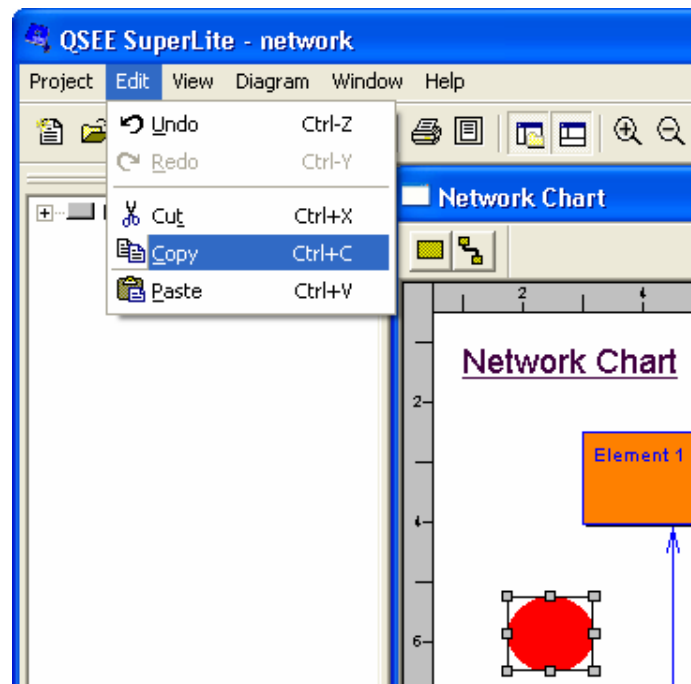


Figure 9.1

9.2 Now paste the copied object by selecting “Edit | Paste” from the main menu bar.

hint: The Cut, Copy and Paste facilities are also all available as buttons within the main toolbar.

9.3 Try cutting and pasting several other objects on the model. If you have an application such as MS-Paint available try copying and pasting into this also.

hint: Any object that is currently within the selection is subject to the cut and copy actions. This allows several objects to be cut or copied at the same time. **CTRL-A** can be used to select all objects on the diagram.

Step 10. Changing Z Ordering

In certain circumstances it is necessary for graphical object to be placed so close to each other that they overlap. When this happens the 'Z' ordering of the objects can be changed so that the objects overlap in a user specified order.

An object may be moved backwards or forwards by right clicking on an object and selecting the appropriate action from the menu.

10.1 Create and position three overlapping graphical annotations, see figure 10.1.

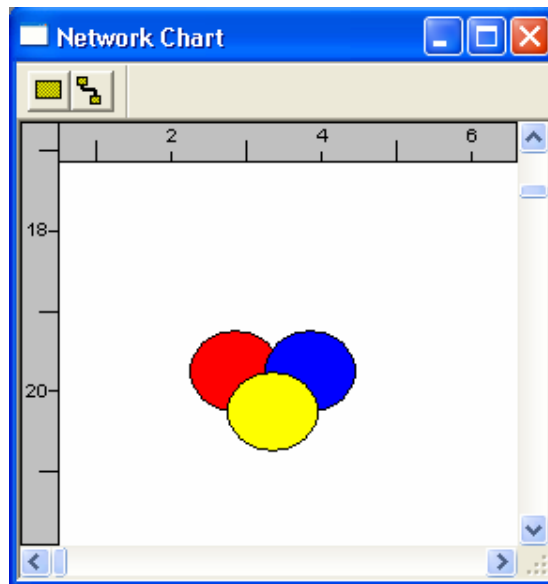


Figure 10.1

10.2 Use the various Z ordering options (see figure 10.2) to re-arrange the ordering of the three graphical annotations. Try getting the red object to overlap the two other objects.

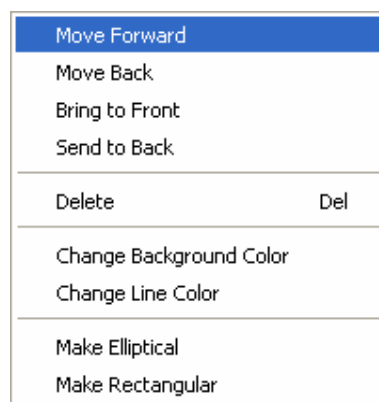


Figure 10.2

Hint: objects that are close to each other are often difficult to select. Holding down the shift key causes a cyclic type selection to occur, where each object under the mouse pointer is selected in sequence.

Step 11. Associating comments with objects

Hidden textual annotations can be specified for almost all objects on a diagram (even the diagram itself). Each object usually has an option towards the bottom of the menu that allows the annotation to be edited. Note: this annotation does not appear on the screen unless it is being edited. This type of annotation is useful to add informal commentary to a model.

11.1 Add an annotation for the diagram by right clicking on the diagram and selecting the “Edit Diagram Annotation” option from the menu, see figure 11.1.

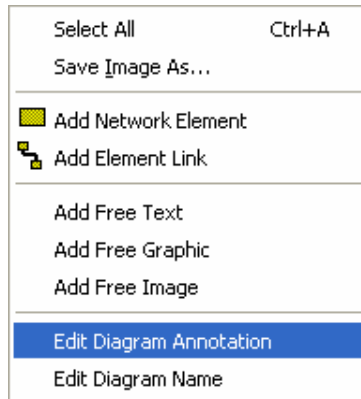
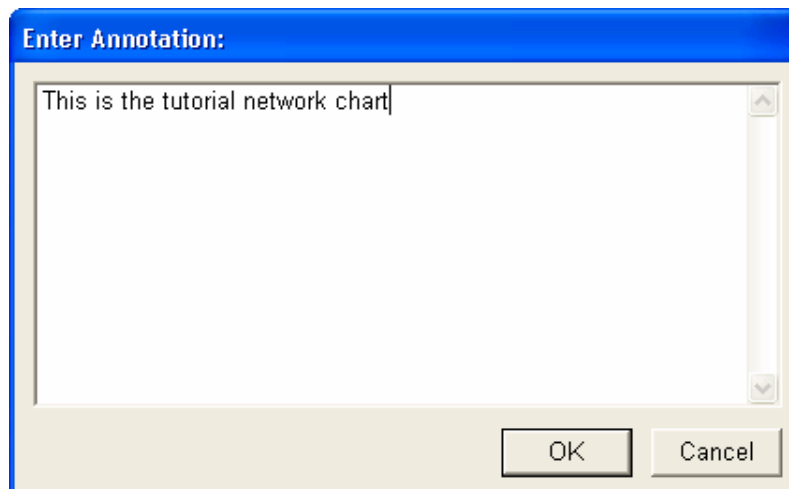


Figure 11.1

Type in some text similar to that shown below, then press “OK”.



Step 12. Using UNDO and REDO

It is possible to undo actions should you make a mistake. To do this left click on the undo icon on the main tool bar or select the “**Edit | Undo**” option from the main menu. It is also possible to redo actions that have been undone. This is achieved in the same way as the undo function but you must select “Redo” operation instead.

12.1 Delete three objects from the diagram and then use the undo facility (see figure 12.1) to make them re -appear.

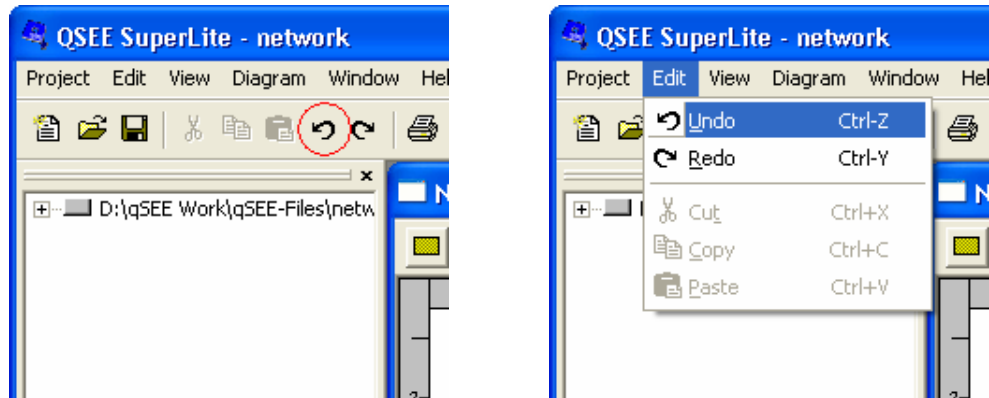


Figure 12.1