Circuit Diagram

This example assumes you understand all the material presented in the tutorials and are familiar with Windows and this help facility.

This example will demonstrate how to create a simple circuit diagram.   Remember, if a draw or edit command doesn't turn out the way it was supposed to, you can use the *Edit/Undo* command to undo it.   Also, remember to save your drawing periodically during this tutorial to avoid losing your work.

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Select the *File/New* command to create a new drawing.   First we will initialize the drawing.
Choose the *Options/Grid snap parameters* command.   Enter an x and y grid interval of 0.5.
Click on the *Display grid* check box and press *OK*.   The grid will be displayed in the drawing
area.

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Choose the *Draw/Load symbol library* command and double click on the *Electrical 1* library. Move the symbol library to a convenient position out of the drawing area by clicking and dragging the symbol library title bar. Load and position the other 2 electrical libraries in the same way.

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Move the cursor over the *Battery* symbol in the second symbol library and click the left mouse button.   Choose the *Snaps/Grid* command to set the grid snap mode.   Move the mouse cursor near any grid point and click the left mouse button.   The program will snap to the closest grid point and use its coordinates as the insertion point for the battery symbol.   Enter a rotation angle of 90 and a scale of 0.5 (the grid interval).   The program will display the symbol, as in the figure below.

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Choose the *Draw/Line* command and move the cursor next to the top of the battery symbol, as in the figure below.   Click the left mouse button.

Move the mouse cursor up one grid point (see figure below) and click the left mouse button.

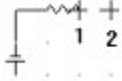Continue the line by selecting a position one grid point to the right.

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Select the *Resistor* symbol from the *Electrical 1* library.   Select position 1, in the figure below, for the insertion point and enter a rotation of 0 and scale of 0.5.

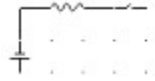The drawing will now look like the figure below.   Draw a line from position 1 to 2.

Choose the *Switch (single)* symbol from the *Electrical 3* library.

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Place the switch at the end of the line you just drew.   Use a rotation of 0 and scale of 0.5.
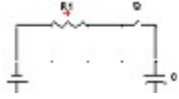
Draw a line down one grid spacing from the end of the switch.   Then add a *Capacitor* (*Electrical 1*) using a rotation of -90 and scale 0.5.   Draw another line down one grid spacing from the end of the capacitor.   Continue the line and close the circuit.

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Choose the *Options/Text properties/Text font* command and pick the *Arial* font, regular style and 12 point size.   Choose the *Options/Text properties/Text justification* command and set a justification of *Bottom* and *Center*.   Choose the *Draw/Text* command.   Set the snap mode to *None* and pick the indicated position for the text alignment point.   Type the text "R1" in the dialog which is displayed next and press Enter.   Create the remaining text strings shown in the figure.

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Now we will plot the circuit diagram.   First we must set up the printer or plotter.   Select the *File/Print/plot setup* command and select the desired printer/plotter and paper size.   Make sure the printer is in *Portrait* mode and press *OK*.

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The next step is to set the plot scale factor and page origin so the drawing fits on the page. Choose the *File/Page setup/Fit drawing to page* command.   The program calculates a plot scale which makes the drawing as large as possible on the page.   Round the value up to the nearest whole number.   For example, if the program displays a scale of 0.29, enter a value of 1.   Next, the program asks if you want to zoom to the new page.   Press *Yes*.   The drawing will be centered on the page.

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Choose the *File/Print/plot* command.   The program displays the print dialog.   Click on *OK* to accept the default parameters.   The program will display a dialog while it is creating the output. This dialog contains only one button, *Cancel*.   If you click on this button or press Enter, the print operation will be canceled and no printout created.   Wait for this dialog to disappear.   The printout is then sent to the specified device by the print manager.

This ends this example.