

Electrical Engineering - Industrial Control Systems Template

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The Electrical Engineering - Industrial Control Systems Template includes terminal, transformer, and rotating equipment shapes, as well as general electrical shapes, annotation symbols, and connectors.

For information about how a particular shape behaves, right-click the shape, then choose Shape Help from the shortcut menu.

Setting up your drawing page

By default, the EE - Industrial Control Systems Template opens with an unscaled drawing page.

To change the page settings and drawing scale:

1. Choose File > Page Setup.
2. On the Page Size tab and Drawing Scale tab, choose the settings you want for the drawing size, the printed page size, and the drawing scale, then click OK.

To change the measurement units, click the Page Properties tab and choose the unit you want to use from the Measurement Units list, then click OK.

See also:

[Rotating and resizing pages](#)

[Setting page orientation and scale](#)

To create a systems diagram:

1. Add system component shapes, and use the shortcut menu where possible to configure a shape.
2. Connect the components by gluing the endpoints of 1-D shapes to connection points on 2-D shapes. The endpoints turn red, indicating that they're glued to the connection points.
3. Use the Label shape to add a label to each component. To replace the existing text, select the Label shape, then type the new text.

TIP You can find other label shapes on the General - Annotations stencil. To open the stencil, choose File > Stencils > Annotation > General - Annotations.

4. To add text to a circuit component, select the shape, then type. Many of the circuit-diagramming shapes have control handles that you can drag to move the shape's text block.

See also:

[About creating and revising connected drawings](#)

Configuring electrical systems shapes

When you drop some of the electrical systems shapes on the drawing page, Visio Technical prompts you for information about the shape's characteristics. For example, when you drop the Rotating Machine shape, a dialog box prompts you to set the machine type and the qualifier. If you want to change the data in the property fields after you've dropped the shape on the page, right-click the shape, then choose the appropriate command, such as Set Machine Configuration, from the shortcut menu.

Many other electrical and electronic shapes can be configured using commands on the shortcut menu. For example, the Capacitor shape does not prompt you for information when you drop it on the page, but you can right-click it to set an alternative form, or switch between variable and fixed.

Working with shape properties

A custom property is a field in which you can store information. You can enter data into a shape's existing fields by selecting the shape, then choosing Shape > Custom Properties.

Each shape has a label property that you can edit by right-clicking the shape, then choosing Shape >

Custom Properties. To display the label text on the shape, select the shape, then press F2 to activate the text block. Move the insertion point to the position for the label's text, then choose Insert > Field > Custom Properties (for Category > Label (for Field), then click OK.

If you want to associate additional data with your electrical systems shapes, you can run the Custom Properties Editor to add properties.

To run the Custom Properties Editor:

- Choose Tools > Macro > Custom Properties Editor.

See also:

[Adding, editing, and deleting custom-property fields](#)

Generating reports from properties

If you've added properties to associate data with electrical systems shapes, you can run the Property Reporting Wizard to generate inventory or numerical reports based on the data. For example, you could generate a parts list for the diagram.

To run the Property Reporting Wizard:

- Choose Tools > Property Report.

See also:

[Creating reports from custom data](#)

Generating a netlist for circuit analysis

You can generate a netlist to help you analyze your electrical circuit diagram using the Netlist Generator tool. The netlist text file includes a list of components used in the diagram and connections or nodes and component values. The Netlist Generator can automatically create the netlist from your diagram, provided that all components are 2-D and the circuit is drawn with all connections glued correctly.

To run the Netlist Generator:

- Choose Tools > Macro > Electrical and Electronic > Netlist Generator.

OR

- Choose Tools > Netlist Generator (an Electrical And Electronic Template must be open).

See also:

[Using the Netlist Generator](#)

Linking shapes to other drawing pages, other files, or World Wide Web locations

You can add navigational links to any shape in your diagram, so that users of the diagram can right-click the shape to jump to separate drawing pages, separate files, or documents on an intranet or the Web. For example, when you create a large or complex systems diagram, you may want to divide it into smaller, more manageable files, so that each file contains a different section of the diagram. You can then link shapes in one section of the diagram to the Visio file that contains another section of the diagram.

To add links to shapes:

- Choose Insert > Hyperlink.

See also:

[About using hyperlinks](#)

Placing Visio drawings on the World Wide Web

You can easily convert a Visio drawing to a format Web browsers can read. Then you can distribute the drawing on an intranet or the Web.

See also:

[Exporting shapes and drawings in .jpg or .gif format](#)

[Saving drawings as HTML pages](#)

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